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ABSTRACT

This collection of papers on the history of developmental education includes: "Historical Perspectives: With Hindsight We Gain Foresight" (Normal Stahl); "Supporting the Research Mission" (David V. Taylor); "A Brief History of the American Council of Developmental Education Associations" (Hunter R. Boylan); "History of Supplemental Instruction (SI): Mainstreaming of Developmental Education" (David Arendale); "Recovering the Vision of John Dewey for Developmental Education" (Mary Ellen Shaw); "History of Developmental Studies in Tennessee" (Carol Hopper Bader and Carlette Jackson Hardin); "The Conference on Basic Writing: 1980-2001" (Karen S. Uehling); "Professional Status for Writing Center Directors" (Mildred Steele); "Toward a Comprehensive Learning Center" (Marti Singer); "The General College Base Curriculum: Description, Historical Antecedents, Theoretical Structure, and Evaluation Outcomes" (Catherine Wambach and Thomas Brothen); and "The Lessons of History: Transforming Science to Include Developmental Education" (Randy Moore). (Papers contain references.) (SM)

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The Center for Research
on Developmental Education and Urban Literacy

Histories of Developmental Education

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Dana Britt Lundell
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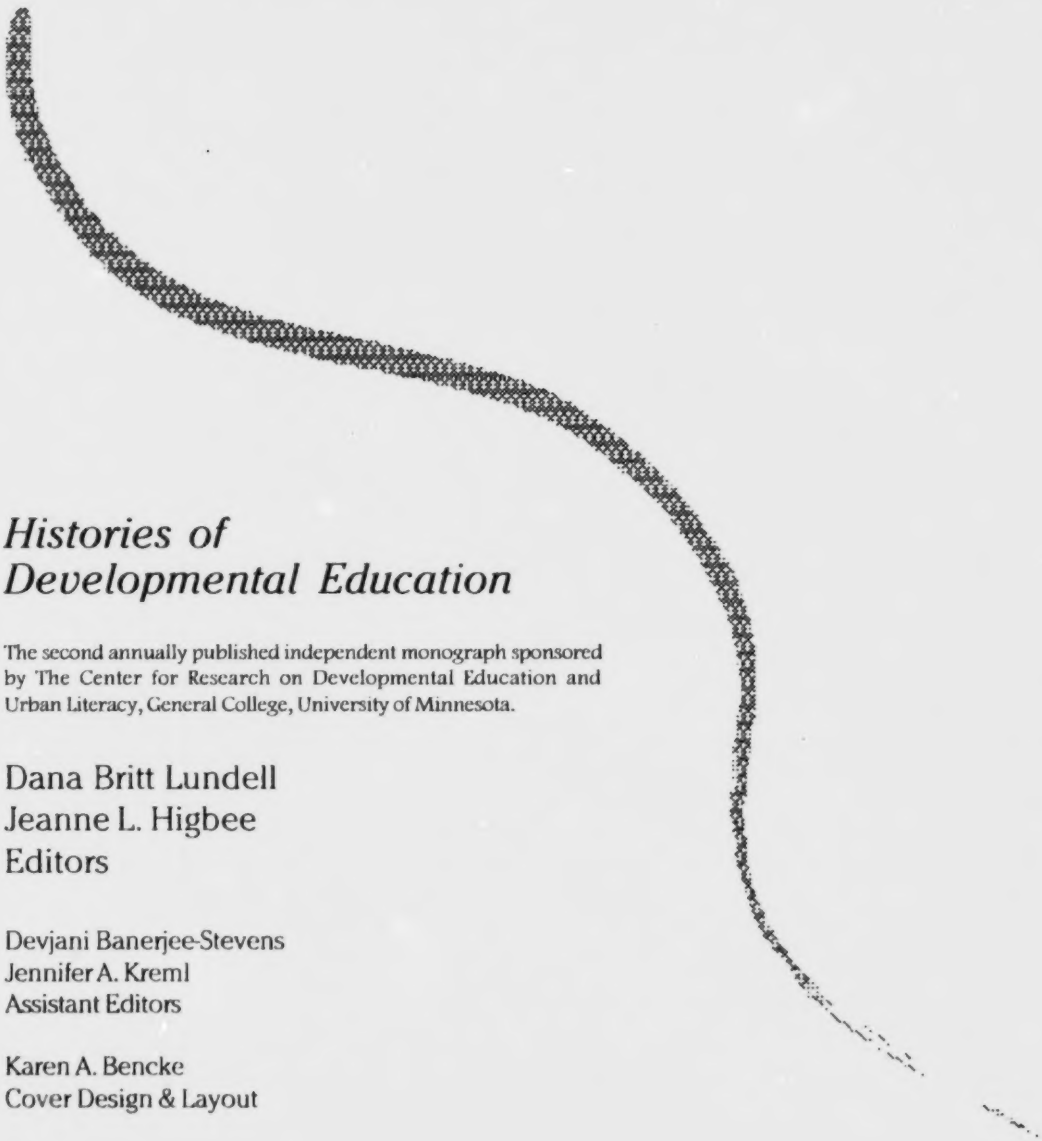

Histories of Developmental Education

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Foreword

Terence Collins, Director of Academic Affairs
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There are good reasons why the title of this monograph is set in the plural form "histories." We who work in developmental education work in plurals. We find our purposes grounded in divergent impulses and in local decisions long forgotten, in specific institutional events, and in large national movements. Yet we come together under the single banner of developmental education. As the histories captured here suggest, that banner stretches uncomfortably to cover our many diverse purposes and our many local entities.

If we take a long view, we see that developmental education traces its many roots to Reconstruction, to the Morrill Land Grant Act, to the Progressive Era, to the Workers' Colleges of the Great Depression, to the G.I. Bill of Rights, to the Civil Rights Movement, to the Community College explosion of the late-mid-Twentieth Century, and to the Open Admissions movement that followed hard upon these latter events. We in developmental education are heirs to various moments of optimism about human possibility and the transformative possibilities of higher education. We and our students enact daily a peculiarly American optimism about human change and intellectual growth. These essays are important in helping us remember where we find our origins and our momentum.

I am especially proud that the General College (GC) of the University of Minnesota has collected and published this volume. In 1932, University President Lotus D. Coffman convinced his colleagues and the Board of Regents that those students who were not prospering in the standard arts and sciences curriculum had a legitimate place in the University. Under Malcolm Maclean and a group of visionary colleagues, the General College forged and published "developmental" curricula grounded in the needs of such students and informed by Dewey's instrumentalist theories. The college continues this tradition today. During the Great Depression, the Land Grant promise of accessible higher learning and practical education flourished in GC. Among those early students who could not pass the entrance test for the Liberal Arts college was Norman Borlaug, whose path through General College led him to the study of plant genetics and the Nobel Peace Prize in 1970 as the "father of the Green Revolution." In the years after World War II, large numbers of war-weary young people entered the University under the G.I. Bill of Rights. Many whose previous education had been interrupted by military service or by the demands of the war economy, like the esteemed Warren Spanaus, former Attorney General of Minnesota, and Dave Moore, award-winning newscaster and journalist, found their way into the University through General College and emerged to shape post-war civic and business life in Minnesota. Like most colleges and universities, the University of Minnesota stretched in new directions to educate the diverse students who entered higher education for the first time in the wake of the Civil Rights movement. General College and its faculty opened the University to new populations through flexible programs and new courses. Through Upward Bound, Student Support Services, and a radically ambitious student parent support program, students like Endesha Ida Mae Holland, Ph.D., Pulitzer nominated playwright and author, found their voice and their place in the University. Now, three decades later, GC remains the most ethnically vital and diverse community on campus.

Higher education is changing. Legislators and policy makers speak with alarm about the "epidemic of remediation" and too often seek to put restrictions on access as the racial and social class divisions in America widen. If we developmental educators wish to make telling arguments about our future, we will need to know and build on our past. Volumes like this one can help us chart our way. We are in the debt of those whose work appears here.

Introduction

Dana Britt Lundell, Director
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The theme for this monograph arose from lively, productive conversations at the First Intentional Meeting on Future Directions in Developmental Education, October 1999, in Minneapolis, Minnesota, sponsored by the Center for Research on Developmental Education and Urban Literacy and General College at the University of Minnesota. Norman Stahl's (2000) summary of one of the salient themes from this meeting, reprinted as the opening piece in this monograph, calls upon the field of researchers and practitioners in developmental education to articulate the field's diverse histories and foundations as a way to guide future practice, theory, and research. Stahl suggests examining the field's past through a variety of lenses, including theoretical lenses, national and local policy issues, curricular and pedagogical trends, research frameworks, important individuals and students, and other items that mark the field's work. The history is rich and highly diverse, and by making our work visible through documenting these activities, the field can strengthen its position as a leading force within higher education.

Following up on that meeting's theme, we have provided a forum in this monograph to promote historical discussions in the field. Specifically, we chose the plural form of this word—"histories"—as the title of this monograph to emphasize the highly varied foundations, locations, and activities that define developmental education. This monograph is a collection reflecting a range of perspectives, including curricular histories, theoretical lenses, disciplinary foundations, local and national policy, and professional development. This collection provides a starting point for future conversations, and we hope other individuals and program leaders will be inspired to continue this articulation.

This volume begins with Stahl's "Historical Perspectives: With Hindsight We Gain Foresight," outlining the role of history in the field's future. This is followed by an excerpt from a keynote address given by Dean Taylor, General College-University of Minnesota, at the Third Annual Research Conference in Developmental Education (October 24-28, 2001), in Charlotte, North Carolina, sponsored by the National Center for Developmental Education (NCDE). This speech offers an administrative perspective and observations from the vantage point of the General College's history as one of the oldest developmental education programs in the nation.

In the next chapter, Boylan, Director of NCDE, offers "A Brief History of the ACDEAs—American Council of Developmental Education Associations," in which he explores the development and role of the council's leadership across organizations in the field. Arendale's chapter presents the "History of Supplemental Instruction (SI): Mainstreaming of Developmental Education," offering a detailed account of the development of SI programs across the nation. Shaw's chapter provides yet another vantage point for the field, exploring an important theoretical lens for student development in "Recovering the Vision of John Dewey for Developmental Education." Together, these chapters highlight important pieces of developmental education's increasingly strong national presence and rich political history.

The next chapters shift toward a focus on programmatic and disciplinary histories, including Bader's and Hardin's "History of Developmental Studies in Tennessee," which examines how evaluations and policy changes impact programs at the state level. Uehling's chapter titled "The Conference

on Basic Writing: 1980-2001" explores the growth of the basic writing profession as a strong developmental education leader in the field of composition studies. Similarly, Steele's chapter on "Professional Status for Writing Center Directors" documents a common theme in developmental education—the struggle for professional status. Singer also offers another take on this theme, documenting the lessons learned from the discontinuation of developmental education learning services in "Toward a Comprehensive Learning Center." In an examination of another program's history, Wambach and Brothen offer "The General College Basc Curriculum: Description, Historical Antecedents, Theoretical Structure, and Evaluation Outcomes." This is followed by Randy Moore's focus on the impact of history in the field of science education, "The Lessons of History: Transforming Science to Include Developmental Education." These chapters inspire us to continue to think about the ways developmental education has evolved as a profession encompassing a diverse range of programs and services, and they encourage us to consider future directions for the field.

For making this monograph possible, we want to express our thanks to Dean David Taylor and Terence Collins, Director of Academic Affairs, at the General College, University of Minnesota, for continuing to support the Center and its publications. Thanks also to our Editorial Board members, who supported our work. Our fabulous editorial staff deserves much praise, including Jennifer Kreml and Devjani (Juni) Banerjee-Stevens (Assistant Editors), and Karen Bencke (technical support, layout, and cover design). We also thank all the authors who contributed to this monograph and believed in its purpose.

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Historical Perspectives: With Hindsight We Gain Foresight

Norman Stahl
Northern Illinois University

This article is reprinted from the Proceedings of the First Intentional Meeting on Future Directions in Developmental Education, first published in 2001 by the Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

The field of developmental education and learning assistance, along with its acknowledged subfields of college reading and study strategy instruction, basic composition instruction, and developmental mathematics instruction, might best be described as a very young but old field. For so many of our programs, it has been less than a generation since they were birthed, and for so many or our colleagues, it has been less than a decade since they began their service to the profession. On the other hand, the field of developmental education and learning assistance has a long and honorable history in service to the postsecondary institutions of the nation (Boylan, 1988; Maxwell, 1997; Stahl & King, 2000).

Hence, it is appropriate that we were called together in the waning days of the 20th century by the General College with its own long history of involvement with nontraditional students. It is equally appropriate that we met at the University of Minnesota, which has given so much to the field through the research, curriculum development, and important leadership of its faculty and staff such as Alton Raygor, Frances O. Triggs, Charles Bird, and David Wark. Their contributions form, in part, the history of developmental education and learning assistance.

The Historical State of the Art

We have a history to celebrate, but what have we done to preserve and to study our heritage? Clearly we have come some distance in recent years in the development and the publication of a respectable corpus of historical studies (Stahl & King, 2000). This history has been presented in a growing literature base composed of historical chronicles (e.g., Brier, 1983; Leedy, 1958), historical summaries and timelines (e.g., Boylan, 1988; Boylan & White, 1987; Maxwell, 1997; Wyatt, 1992), and topical or era-oriented papers (e.g., Quinn, 1995; Stahl, King & Eilers, 1996; Stahl & Smith-Burke, 1999). In reviewing the literature, one finds that broadly oriented sweeps of the historical landscape abound, but there is still a limited number of historical works focused on individuals, institutions, curricular movements, instructional innovations, and specific eras.

As long-term participants in our field, we have come to value the historical perspective and to recognize its importance as our field strives to be recognized as a legitimate academic entity by our colleagues throughout the academy. We fully understand that the conduct of historical research should be more than simply trying to fix one's own place in history. Instead, we put forward a clarion call to all members of the field to undertake the continued examination of our roots and of our heroes from years gone by so that the legacy and the valued knowledge of the past two centuries can be shared with colleagues and simply not fade away in the new millennium.

Developmental Education History at the National and State Levels

In advocating our position, we acknowledge that our history might be studied at two separate but nonetheless integrated levels: the national and state

level, and the institution and program level. Let us examine the former at this point. Throughout our discussions of the field's history at the national level as it goes back into the 1800s, there were numerous questions raised that might guide future research. Several examples can be put forward for the reader's consideration at this point:

1. Through what scholarly lenses (e.g., social history, critical pedagogy) have we or might we examine our field's history?

2. How have the contributions from our field impacted the larger field of postsecondary education over the decades? To what degree have we been either change agents or pawns in the larger arena?

3. How have the historical events and the curricular innovations and trends of postsecondary education impacted our field over the years?

4. What and how have governmental actions, economic policies and events, social issues, legal rulings, immigration trends, and general educational orientations and innovations influenced programs?

5. What have been the important programs and what were their particular contributions during past historical eras?

6. Who have been the individuals who have influenced the field, and what have been each individual's key contributions?

7. What were the landmark scholarly texts, assessment devices, and curricular materials across the years, and why did these texts gain such status?

Questions pertaining to our past such as the aforementioned are among many requiring initial or continued scrutiny by the research community. In addition, clear consideration should be given to such questions by graduate students as they look for original and scholarly topics for either their thesis or their dissertation research.

Developmental Education History at the Nearby Level

Let us now turn to a more localized or nearby form of historical endeavor for the developmental educator and the learning assistance professional. It is unfortunate that the orientation to history so many of us encountered in school taught us to value a cult of facts associated with great men, just wars, and momentous movements of the premodern and modern eras. All the while we overlooked the more personal and, ever so often, more relevant facets of nearby history. (See Kyvig & Marty, 1982, for in-depth coverage of many of the ideas underlying the practice of nearby history.) Indeed, as William Shakespeare penned, there is history in all men's lives.

Clearly developmental educators must be ever cognizant that history is not the sole province of national and international events. If historical events and sociopolitical movements of the past two centuries have shaped the developmental education profession of 2000, so too has the impact of each been felt at the program, the institution, and the system levels. Furthermore, important history has been made within these organizations as well.

The five of us are in strong concordance that our colleagues within the developmental education and the learning assistance professions must place value on and then undertake the chronicling and celebrating of the roots of our respective programs whether these be at universities, liberal arts colleges, community colleges, or technical colleges. It is so true that the profession has much to gain by learning about our respective programs' origins, milestones, dynamics, and effective leaders. The profession has much to learn from how particular programs faced and overcame adversity brought by academic forces internal to the institution or the higher education system, or by sociopolitical forces playing themselves out at the state or national levels. The profession has much to gain by embracing and promoting the practice of nearby history as a valued scholarly activity for the program, the institution, and the field of developmental education.

It is with the study of nearby history, whether through the review of published documents and unpublished sources, the examination of artifacts, or the conduct of oral histories, that we can answer questions such as the following:

1. Who are we as developmental educators, as members of our profession, and as members of our academic communities?

2. How have our programs evolved over the years to become what they are today?

3. How have we been able to contend with the various situations, both internal and external to the program, that have been encountered over the years of program operation?

4. What can we expect from people, programs, and policies that impact our professional lives?

5. How might we use historical lessons at one's campus and from other schools to predict and plan for the future?

It is through the conduct of nearby history (for examples see Spann, 1996, and Walker, 1980) that we are able to build a professional community and a professional identity, all the while being able to celebrate the distinctiveness of each of our programs.

History in Our Future

Where we have failed, and we might say failed rather dramatically, is in the promotion of the historical perspective to those individuals serving in developmental education or learning assistance positions. National accreditation boards and state certification agencies require that all prospective teachers from preschool through the 12th grade demonstrate knowledge of the historical foundations of education. Individuals seeking advanced degrees in higher education are required generally to complete course work pertaining to the history of higher education. Our colleagues in developmental education do not have at this time formal accreditation agency mandates, and only in rare circumstances do they meet with institutional mandates requiring knowledge of the history of our field.

Because developmental educators and learning assistance specialists are more often than not self-trained in the field, few individuals have had the opportunity to learn about and hence to value our field's rich heritage. Formal degree programs and certificate programs such as those offered by Appalachian State University, Grambling State University, Southwest Texas State University, and National Louis University are limited. Graduate courses like those found at Northern Illinois University and the University of Georgia that cover our history are not prevalent. It is little surprise, then, that we recommend that existing training programs direct attention to the historical foundation for the field through course objectives and degree requirements. In addition, we believe that through distance education and on-line courses there will be boundless opportunities for quality instruction about our field to be delivered to individuals not able to attend more traditional venues. In the future as this becomes the case, any courses or programs that make use of nontraditional delivery systems should include historical coverage of the field.

Presentations on the field's history continue to be quite limited at conferences and symposia such as those put on by the National Association for Developmental Education (NADE), the National Center for Developmental Education (NCDE), and the College Reading and Learning Association (CRLA). Unfortunately, when historical topics are available, the sessions tend to be attended poorly as individuals are more often than not seeking sessions providing guidance and best practice for the day-to-day concerns of the developmental educator. Hence, we voice a shared opinion that our national and state professional associations as well as those institutions delivering conferences and institutes should strive to foster the study of our history and the dissemination of such endeavors. Those organizations that do not have a historian on the board of directors, should appoint an individual to such a position. Those organizations that have an individual or committee charged with promoting the historical perspective of the organization and of the field should develop a formal plan by which the celebration of our history is an ongoing activity through the development of historical narratives and oral history projects.

We close this paper with a feeling that we all took away with us from our conversations. It is time for our colleagues to become students of our history. It is time for our colleagues to value our historical contributions to postsecondary education. It is time for our colleagues to become historians of our field both at the national and nearby levels. It is time for the leadership of the field to have the conviction to support research and activities delving into our honored heritage. Finally, it is time for all of us to realize that through informed hindsight we gain the foresight necessary to move the field forward in this new millennium.

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Supporting the Research Mission

David V. Taylor, Dean
General College, University of Minnesota

This article is an excerpt from a keynote address presented at the National Center for Developmental Education's Third National Conference on Research in Developmental Education, Charlotte, North Carolina, on October 25, 2001, by Dr. David V. Taylor, Dean of the General College, University of Minnesota.

It is indeed a pleasure to have been invited to attend this conference, the Third National Conference on Research in Developmental Education. I am especially pleased to have been given an opportunity to address this exceptional group of educators and to share with you some observations that I have made as an administrator of an academic unit whose expressed mission is to promote the discipline of developmental education through research and teaching.

The title of my presentation is "Supporting the Research Mission." However, after some consideration I thought that I would initially share with you today a small piece of the General College past. This is necessary in order to place in proper context my understanding of what it takes to support a research mission.

Although the current president of the University of Minnesota refers to the college as one of the jewels in the University's crown, we have been not so favorably considered over the years of the college's existence. It has been a 70 year struggle for legitimacy and recognition. In the experiences that I am about to share, perhaps many of you might identify some similarities between our struggle and your experiences.

The General College was founded in 1932 as an experimental approach to a retention problem experienced by the University of Minnesota. Once admitted to the University, students were thrown into a very traditional liberal arts curriculum with no introduction to core disciplines or assistance in determining a major field of study. Under these circumstances and without effective counseling, students dropped out of the University early in their studies. Very concerned about a serious retention problem, President Lotus Coffman approved two experimental programs. The first was called University College, an interdisciplinary program founded in 1931 that culminated in an individualized major. The second was the General College, founded in 1932, a program offering a general education curriculum featuring introductory courses to the core disciplines and academic and personal counseling for students. During its first 25 years it became nationally known for its curriculum and student services advising and counseling program. By the late 1970s the General College offered certificate programs, Associate of Arts degrees, and two baccalaureate degree programs.

At the time of my appointment in 1989, the General College was under duress. Over several decades the University had added several new degree programs without eliminating any. State funding had not kept pace with programmatic expansion. During the intervening years the State of Minnesota had also established a state university system, a community college system, and a vocational education system as well. Unable to accommodate the University's ever-increasing need for additional resources, the Minnesota Legislature in 1986 requested that the University establish academic priorities, reduce redundancies, and cut expenses.

The General College and several colleges were considered for closing. It was argued that with the establishment of community colleges in the Twin Cities there was no need for the General College. Underprepared students should be redirected to area community colleges. The administration chose not to

close the General College at that time. It would have been politically difficult to do so. A compromise was reached that provided for a new dean to be hired and the college reorganized. I was hired in February of 1989. I did not fully appreciate the dynamic then. However, the stage was carefully set and a script written for the College's political demise. It was simply a matter of time.

The General College embarked upon its new mission as a freshman admitting college. We retained our autonomy as a college, with a resident faculty who could earn tenure, control over our curriculum, our own facility, and an independent budget. In return for such autonomy, the college would relinquish all certificate and degree programs. In place of these programs the college developed a curriculum that would admit academically at-risk students and prepare them for successful transfer to other degree granting colleges at the University.

At that time the General College faculty numbered about 35, representing most of the disciplines found in the social sciences and some of the physical and biological sciences. Although the faculty was well represented among the ranks of distinguished teaching faculty at the university, little was being accomplished with respect to disciplinary research leading to publications and sponsored research. The college and its faculty lacked a central disciplinary focus that could define and direct the scholarly work of the faculty and academic professionals in our student services division.

Ten years ago, in 1991, the General College formally embraced developmental education as its disciplinary focus. The mission statement was rewritten to reflect the new vision and was later amended to include multicultural education. By 1993 the theoretical premise and structural reorganization of the college had been completed. A system of merit pay that rewarded excellence in teaching, research, and publication in developmental education had been established. A base curriculum for students was implemented and new faculty hired to teach it. The Student Services division was reorganized with a different advising model. In 1996 The Center for Research on Developmental Education and Urban Literacy (CRDEUL) was established to encourage scholarship around the intersection of theory and practice in developmental education.

In 1996, while the college's leadership was busily putting in place the final pieces of the strategic plan, the forces of darkness rallied and conspired once more to close the college. Conflicted over the continuing presence of underprepared students in an elite research university, and unable to wrangle more money from the state legislature, the President sought to improve the university's financial status by adopting the University of Michigan model of higher admissions standards, higher tuition, greater financial aid, and a smaller undergraduate student body. There was a parallel effort to recast the University's historic land-grant mission in order to accomplish this plan and to consolidate existing collegiate units into reconfigured academies.

The General College did not fit the emerging profile. Although the proposed closure of the college was only one of several recommendations, it quickly became the most highly politicized, eventually drawing national attention. Actually, the college was a pawn in the much larger struggle between the Board of Regents and the President, about whom the board had expressed concern about indecisive leadership. In choosing to close the college the President attempted to demonstrate his ability to act decisively and strategically. The issues were twofold: (a) could a research university maintain access and achieve excellence, and (b) was developmental education a disciplinary field where the university wanted to invest its resources. The President contended that the presence of underprepared students at the University undermined its academic image, and that the General College had not contributed measurably to the graduation rates of these students. The President proposed closing the General College, transferring the developmental education program to an area community college, and inviting the community college to open a satellite program on the University's campus.

At this point I am obliged, as an historian, to point out that this is my interpretation of the events that transpired. As I tell my students repeatedly, there is only one history but invariably several interpretations of a given event.

The debate over the future of the General College became divisive, pitting the President against the Regents, whom he failed to inform of his intentions; the press, media, and business community against the college; citizens against citizens; faculty against faculty;

legislators against legislators; and students against students. The debate raged in the newspapers, on television and radio, and on the Internet for two weeks before the Board of Regents, embarrassed by the way in which this discussion was engaged, directed that the President and the administration cease and desist from all efforts to close the college. The land grant mission of the University was reaffirmed. The University would remain accessible to underprepared students. The General College would continue its research focus.

A political compromise was reached through which the number of at-risk students admitted to the university would be somewhat reduced and the overall numbers of underprepared students admitted to the General College would be contingent upon the college's ability to successfully prepare them for transfer and retention in the university. The college was also instructed to undertake an internal review of its academic program and services in preparation for an external review and evaluation. The outcome of the review was to be presented to the Board of Regents along with the strategic direction that the college was going to pursue.

An internal review of the college and its programs was conducted during the fall quarter of 1997. During the spring quarter of 1998 an external team of professionals arrived to evaluate the strengths and weaknesses of the college's academic program. Their assessment was incorporated into a new strategic planning document. The results of the new strategic plan have been most gratifying. The college hired a senior scholar in the field of developmental education to help shape the direction of faculty research. It hired eight new faculty since 1996 and strengthened the research center, which successfully launched a monograph series. In 1998 the college established a grants office to assist faculty and staff to explore possibilities for sponsored research. Most recently, in partnership with the College of Education and Human Development, the General College was successful in getting approved a certificate program in developmental education. This program could be part of any existing graduate-level major in the field of education and was designed to have a distance learning component as well.

In 1999 the college established a development office, charged with raising external resources in support of the center's scholarly work, faculty development opportunities, scholarships for our students, and resources for our community outreach programs. To date we have raised 2.6 million dollars towards a goal of 3.9 million. One of our alumni has provided a 1.5 million dollar matching grant.

In addition to the aforementioned accomplishments, in 1999 the General College was named one of five sites nationally for best practices in developmental education by the American Productivity and Quality Center. The College received the John Champaign Memorial Award for Outstanding Developmental Education Program given by the National Association for Developmental Education (NADE), and the 2001 Noel-Levitz Retention Excellence Award. Additionally, one of our advisors won the National Academic Advising Association (NACADA) 2000 Award for outstanding academic advising, and another was given the NACADA 2000 Award for the best Electronic Advising Web Page. Our Upward Bound Special Services and Ronald McNair programs are also among the most respected in the nation.

My presence before you today and the contingent of 21 faculty and staff from the General College attending this conference is a testimony to the fact that access does not come at the expense of excellence. They are not mutually exclusive or diametrically opposed. In fact excellence requires diversity that only access provides. Recently the University of Minnesota was cited by a study out of the University of Florida as one of three top research institutions in the United States. The only criterion that kept us from being ranked higher was the average SAT score of our entering students.

The faculty and staff from the General College that are here today have been instrumental in advancing scholarly discussion, research, and dissemination concerning developmental education. They have extended that discussion to the areas of disability accommodation and multiculturalism as well. We are very pleased to be here and to demonstrate our support for advancing this field of study.

A Brief History of the American Council of Developmental Education Associations

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The American Council of Developmental Education Associations (ACDEA) was founded in 1996 for the purpose of increasing cooperation, communication, and collaboration among professional associations in developmental education and learning assistance. Council members currently include the Presidents of the College Reading & Learning Association, the National Association for Developmental Education, the National College Learning Center Association, and a representative from the National Center for Developmental Education. This brief history of ACDEA describes the council's organization and development. It outlines the issues, actions, and collaborative activities undertaken by the Council from its founding until the present time.

The American Council of Developmental Education Associations (ACDEA) held its first organizational meeting at the February 1996 conference of the National Association for Developmental Education (NADE) in Little Rock, Arkansas. Dr. Gene Beckett (then president of NADE) invited the presidents of other associations who were attending the conference to meet and discuss establishing a council representing developmental education and learning assistance organizations. The original idea as envisioned by Beckett and Jim Melco (then co-chair of NADE's Political Liaison Committee) was to bring organizations together to: (a) develop a political agenda for learning assistance and developmental education associations, (b) promote that agenda through political liaison activities, (c) establish a unified "voice" for the field, (d) provide a forum for improved communication among the various professional associations in the field, (e) provide a vehicle for the coordination of association activities, and (f) promote cooperation among the various professional associations in the field. Participants in the initial meeting represented the College Reading and Learning Association (CRLA), the College Division of the College Reading Association (CRA), Commission XVI (Learning Centers in Higher Education) of the American College Personnel Association (ACPA), the Midwest College Learning Center Association (MCLCA), the National Association for Developmental Education (NADE), the National Center for Developmental Education (NCDE), the National Council of Educational Opportunity Associations (NCEOA), and the National Tutoring Association (NTA).

At this meeting the NCEOA representative indicated that the organization did not wish to be represented on the proposed Council but that they would support its activities. As a Washington based political organization supporting educational opportunity, NCEOA was reluctant to confuse people about its identity by aligning itself with the concept of developmental education. In keeping with this emphasis on opportunity, the NCEOA was later renamed the Council for Opportunity in Education. The remaining representatives agreed to bring the idea of forming a council back to their executive boards, discuss it, and meet again at the fall CRLA Conference in Santa Fe, New Mexico.

Commission XVI of ACPA and the College Division of the CRA were both relatively small organizations with limited budgets. Consequently, their representatives indicated that they would like to continue as observers to the group but that they were not sure they would be able to send representatives to all future meetings. These two groups were then granted nonvoting "observer" status with the Council.

The association executive boards all agreed to pursue the idea of such a council, and the first official meeting was held at the 1996 CRLA Conference in Santa Fe, New Mexico. At this meeting the president

of NTA pointed out that their association was prohibited by its constitution from participating in political activities. Because some of the other associations also had reservations about getting involved in political activities, the original vision of the council as a political organization was discarded. Instead, the association presidents agreed that the council should work to improve cooperation among associations, coordinate association activities, and take on tasks cutting across organizational boundaries. The association presidents also believed that the Council would be the appropriate body to air and to arbitrate disagreements among professional associations in the field.

Based on these general aims and purposes, the American Council of Developmental Education Associations was formally established at this meeting. Hunter Boylan of NCDE was selected by the members to chair the Council. It was felt by many Council members that because the NCDE was not a membership based professional association its representative was more likely to be neutral in the event that the Council was called to arbitrate inter-association conflicts. It was also agreed that ACDEA would meet twice a year at the conferences of NADE and CRLA.

The Council met in 1997 at the NADE Conference in Chicago, Illinois, and the CRLA Conference in Sacramento, California. Early activities included coordination of association conference dates and discussion of sharing conference privileges among member organizations. The Council also addressed two proposals from NADE for certification of individual developmental educators and certification of developmental programs. The former proposal was deferred for further study. The latter proposal was supported by all council members. NTA also introduced a proposal for tutoring program certification. Approval of this proposal was deferred until final details were worked out by the NTA Executive Board. The Council did agree that all member groups would recognize the pre-existing CRLA tutor certification program.

At the council's 1998 meeting during the NADE Conference in Atlanta, a draft agreement was developed for sharing conference privileges. These included providing fee waivers for each member association of ACDEA for each other's conferences, providing free conference exhibit space at each other's conferences, providing complimentary advertisement in each other's conference programs, and promoting each other's conferences and events. Member associations also agreed to recognize and support each other's certification programs as they were developed.

Considerable ACDEA discussion was devoted to association certification programs during 1998 and 1999. CRLA and NTA worked collaboratively to insure that their tutor certification programs would not conflict. CRLA also added a mentoring certification program during this period and recognition of this program was approved by the Council. The NADE proposal for individual certification of developmental educators was eventually abandoned. There was considerable resistance from the field to the notion of certifying individual developmental education and learning assistance personnel. The Council and NADE decided that their efforts would be better invested in promoting and developing existing certification programs.

Furthermore, Dr. Martha Maxwell had recently submitted a proposal to the Council for the establishment of a "Fellows Program" to honor outstanding professionals in the field. It was believed that this proposal might accomplish some of the same objectives as the original individual certification proposal and would be more acceptable to professionals in the field.

The association certification programs eventually agreed upon for joint recognition included the CRLA Tutor and Mentor Certification, the NTA Tutor Program Certification, and the NADE Program Certification. At the 1998 CRLA Conference in Salt Lake City, Utah, agreement was reached on shared conference privileges for each member association of ACDEA and these were later approved for implementation at the 1999 CRLA Conference in New Orleans, Louisiana. The idea of charging dues to support Council activities was also agreed upon at the Salt Lake City conference.

At the 1999 NADE Conference in Detroit, Michigan, the Council agreed to develop a constitution for the group. A dues structure for Council members was also discussed, and the Chair of the Council was asked to develop a proposed budget for Council operations. At this meeting, Council members invited Mr. Marty Vespo, the Director of the Kaplan Higher Education Division to discuss his organization's efforts to provide commercial remediation. The Kaplan

organization was attempting, at that time, to become a major subcontractor for remedial courses. In fact, two well-known community colleges had already contracted with Kaplan to provide remediation. Mr. Vespo sought Council support for these efforts. Instead, the Council voted to withhold any support for the notion of subcontracting remedial courses, primarily because members considered this to be a threat to the integrity of the field. Kaplan later disbanded their Higher Education Services in the spring of 2000.

At the 1999 CRLA Conference in New Orleans, the Council met with Mr. Daryl Peterson of the Houghton-Mifflin Faculty Development Programs. Mr. Peterson proposed that the Council cooperate with Houghton-Mifflin in designing and implementing a resource web site for developmental education. Following discussion, the proposal was rejected. A primary reason for this rejection, put forth by the NTA representative, was that the Council's credibility among professionals would be tainted by any involvement with commercial vendors.

Approved for implementation at the 1999 New Orleans CRLA Conference was Dr. Martha Maxwell's proposal for the establishment of a "Fellows" program sponsored by the Council. This program recognized distinguished professionals in learning assistance and developmental education by initiating them as Council Fellows. The Council agreed that each member association would elect three people as Fellows and that this would form the core organization. Future fellows would be selected by the existing Fellows in consultation with the Council.

A group of the first thirteen Council Fellows was inducted at the 2000 NADE Conference in Biloxi, Mississippi. The thirteen founding fellows included Dr. K. Patricia Cross, Dr. David Arendale, Dr. Hunter Boylan, Dr. Martha Casazza, Mr. Frank Christ, Dr. Al Granowsky, Dr. Gene Kerstiens, Dr. Martha Maxwell, Ms. Kathy Nuse, Dr. Michael Rose, Dr. Karen Smith, and Dr. Bunk Spann. Dr. Spann was nominated by the NCDE for the initial selection, but NCDE declined to provide further nominations because the Center is not a membership based organization.

Several debates marked the Council meeting during the 2000 NADE Conference. Among the first NADE programs certified was a tutoring program, and it was described in the NADE Conference Program as a "tutoring program certification." This was viewed by the CRLA representatives as conflicting with their tutor certification program. After some discussion, it was agreed that representatives of both organizations would meet after the conference to change the language of certification documents to avoid confusion between the NADE and CRLA certification programs.

The NTA representatives to the Council also argued against having a formal structure for the organization, particularly one that required the payment of dues. Although no formal vote was taken, the consensus of the Council was that the structure of the organization should be formal rather than informal. The other Council members also agreed that some dues structure would be necessary to support the Council's operations. Following this discussion a budget and dues structure was approved. It was agreed that each association would pay $500 as part of their membership obligation and that this money would be used to fund Council activities. The NTA withdrew from the Council following this meeting citing reluctance to pay dues for membership.

One outgrowth of collaboration of Council member organizations during the 2000-2001 academic year was a joint CRLA-NADE Symposium. This event was held in the summer of 2000 in Breckenridge, Colorado.

At the 2000 CRLA Conference meeting of the Council, arrangements for sharing consolidated mailing lists were discussed, the proposed Constitution for the Council was reviewed, and revisions were recommended. A discussion of the Fellows Program resulted in one of the Founding Fellows, Dr. Gene Kerstiens, being charged with coordinating the selection of future fellows. It was agreed that a detailed selection procedure would be adopted, that candidates for fellowship would be reviewed and selected by the Founding Fellows, and that the next round of Fellows would be initiated at the 2001 CRLA Conference.

A major outcome of the Council meeting at the 2001 NADE Conference in Louisville, Kentucky, was the approval of a constitution for ACDEA. The Council's first formal election was held, and Dr. Hunter R. Boylan of the National Center for Developmental Education was elected to a two-year term as Chair of the Council.

At this meeting, Dr. Gene Kersteins also proposed a new selection process for Fellows of the ACDEA, and

this was approved. During the summer of 2001 three new Fellows were selected as a result of this process: Dr. Kathy Carpenter, Dr. John Roueche, and Dr. Claire Ellen Weinstein.

Arrangements for co-sponsorship of the Third National Conference on Research in Developmental Education were also discussed by Council representatives. Meanwhile, the Midwest College Learning Center Association had changed its name and its constitution to reflect a national agenda. It became the National College Learning Center Association (NCLCA) in 1999 and, as a national organization, was eligible to co-sponsor the national research conference in developmental education.

The Council also discussed its budget and dues structure. Because a second round of Fellows was not selected during the 2000-2001 academic year, several anticipated expenses were not incurred. As a result, the Council had a budget surplus. Council representatives agreed that they would continue to pay membership dues of $500 for the 2001-2002 fiscal year even though a budget surplus existed.

The Council also determined that because the National Tutoring Association was no longer a member of the organization, the Council could revisit the issue of political liaison activity. Following discussion, the Council members agreed that ACDEA should develop and pursue a political agenda. The CRLA President, Tom Dayton, agreed to develop a statement of rights for underprepared students and that this might serve as a framework for Council political activities. This statement was presented at the 2001 CRLA Conference.

To date, the Council's efforts have included: (a) the establishment of a protocol for shared conference privileges among Council members, (b) an agreement for universal recognition and support of Council member organizations' certification programs, (c) the coordination of member associations' major conference and activities dates to avoid conflict and overlap, (d) the improvement of inter-association communication, (e) the approval of a dues structure to support Council activities, (f) the sharing of association mailing lists for conference marketing purposes, (g) the initiation of joint activities such as the CRLA-NADE symposium, and (h) the establishment of the ACDEA Fellows Program.

Current members of the Council include CRLA, NADE, NCLCA, and NCDE. CRA continues to send representatives to Council meetings. Commission XVI of ACPA has not sent an official representative since 1999.

Future Council activities include the continuation of the ACDEA Fellows Program, continued collaboration in events planning, establishment of Council by-laws, the establishment of a political agenda and political liaison activities, and further joint activities. The Council also plans to establish a joint membership base and to distribute information on current trends and issues in developmental education and learning assistance to member associations.

History of Supplemental Instruction (SI): Mainstreaming of Developmental Education

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Postsecondary institutions throughout the nation's history have provided developmental education and learning assistance programs to meet the academic standards expected of admitted college students. This history of developmental education provides a context for the creation of the Supplemental Instruction (SI) model in 1973 at the University of Missouri-Kansas City to meet immediate needs at the institution due to a high attrition rate among students enrolled in professional schools. The national, and eventual international, dissemination of the SI model was due to its meeting similar needs at other institutions as well. SI has become a widely adopted method of mainstreaming the best practices of developmental education with college-level courses.

It is important to understand the historic relationship of Supplemental Instruction (SI) to other forms of academic assistance and enrichment for students. A review of U.S. higher education history since the mid 1600s provides a framework to place SI within the broader context. "It can be asserted accurately that bridging the academic preparation gap has been a constant in the history of American higher education and that the controversy surrounding it is an American educational tradition" (Brier, 1984, p. 2).

As depicted in Figure 1, the six phases of developmental education (Arendale, 2000) in American history are naturally interconnected with the social history that surrounds and interacts with them. Each resulting historical phase has included more student subpopulations that need support in higher education through developmental education. Degler (as cited in Chafe, 1991, p. 172) observed that social change is more likely to occur as a practical response to specific events rather than as the implementation of a well-developed ideology. Major events such as world wars, major migrations of people, economic trends, and federal legislation will play important roles with helping to foster changes in postsecondary education. These currents of history will also naturally affect developmental education as it adapts to meet immediate needs and survives the political forces that will war against its existence. Developmental education expanded its service to more students not due to an intelligent plan, but as a natural response to growing needs by an increasingly diverse heterogeneous college student body. Within this context Supplemental Instruction would be created later in the twentieth century. For purposes of this study of the history of Supplemental Instruction, the fifth phase of developmental education history (i.e., early 1970s to mid 1990s) will be explored.

Developmental Education and Learning Assistance Centers

Beginning in the 1970s the predominant term of choice for many who work within the profession has been "developmental education," borrowed from the field of college student personnel. Developmental education is more comprehensive regarding the student and focuses on development of the person through both the academic and social domains (Casazza & Silverman, 1996). Rather than focusing on student deficits, developmental education assumes that each student has talents that can be developed beyond dealing with improving weak skill areas. Developmental education assumes that all students are "developmental" and can grow in multiple dimensions of their academic skills. "The notion of developmental sequence is the kingpin of developmental theory . . . A goal of education is to stimulate the individual to

Figure 1. Different phases of developmental education for college students in the United States. (Arendale, 2000)

Time Period	Name(s) Commonly Used With Activities	Students Predominantly Served During This Time Period
Mid 1600s to 1820s	Tutoring	Privileged White males
1820s to 1860s	Precollegiate preparatory academy and tutoring	Privileged White males
1860s to Mid 1940s	Remedial education classes within college preparatory programs and tutoring	Mostly White males
Mid 1940s to Early 1970s	Remedial education classes integrated within the institution, tutoring, and compensatory education	Traditional White male students, nontraditional males and females, and federal legislative priority groups: first-generation college, economically-disadvantaged, and students of color
Early 1970s to Mid 1990s	Developmental education, learning assistance, tutoring, and Supplemental Instruction	Previous groups listed above and an increase in older students who are returning to education or attending postsecondary education for first time
Mid 1990s to Present	Developmental education with expansion into enrichment activities, classes and programs	Previous groups listed above and an increase in number of general students who want to deepen mastery of academic content material
This figure describes the six phases of developmental education for college students in the United States since the mid 1600s. Each succeeding phase has included more student subpopulations that needed academic assistance at the postsecondary level.		

move to the next stage in the sequence" (Cross, 1976, p. 158). Many similarities exist among the goals of developmental education and those of lifelong learning.

In the early 1970s a new manifestation of developmental education was the introduction of the Learning Assistance Center (Carman, 1970; Christ, 1971; Ellison, 1973). Many in the developmental education field credit Professor Frank Christ at California State University-Long Beach for being the first to use the term in the professional literature and developing the first Learning Assistance Center (LAC), then called the Learning Assistance Support System (Christ, 1997). White and Schnuth (1990, p. 157) noted that a distinguishing characteristic of LACs is their comprehensive nature and mission within the institution. Rather than focusing on a subpopulation of underprepared students, LACs extended their services for all students and faculty members. The center was seen as a natural extension of the classroom with enrichment activities for all students, not just those with a history of academic underperformance.

Christ (1971) stated that these LACs had six purposes: higher course grades for participating students; central location for students to receive tutorial assistance; a referral source to other helping agencies; a comprehensive library of basic study aids; a training agency for paraprofessionals, peer counselors, and tutors; and a center for faculty development. This last feature of serving as a venue for faculty development is unique in comparison with previous remedial and developmental education programs:

> A Learning Assistance Center will be any place where learners, learner data, and learning facilitators are interwoven into a sequential, cybernetic, individualized, people-oriented

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> system to service all students (learners) and faculty (learning facilitators) of any institution for whom LEARNING by its students is important. (Christ, 1971, p. 39)

LACs, according to Christ, were much more comprehensive in terms of theoretical underpinnings and the services that they provided in comparison with earlier reading labs and other forms of academic assistance:

> [LACs] differed significantly from previous academic support services by introducing concepts and strategies from human development, the psychology of learning, educational technology, and corporate management into an operational rationale specific to higher education; by functioning as a campus-wide support system in a centralized operational facility; by vigorously opposing any stigma that it was "remedial" and only for inadequately prepared, provisionally admitted, or probationary students; and by emphasizing "management by objectives" and a cybernetic subsystem of ongoing evaluation to elicit and use feedback from users for constant program modification. (Christ, 1997, pp. 1-2)

LACs, and later Supplemental Instruction, benefitted from this focus on avoiding the remedial label for their services. Community colleges during this time warmly embraced remedial education because they viewed it as a primary mission for their institutions and a source of state financial support. Legislative leaders sought to differentiate institutional missions among types of higher education colleges and universities. It was difficult for public four-year institutions to receive state appropriations to fund expansive remedial courses. However, learning enrichment services offered to all students at four-year institutions were politically acceptable to most institutional and state-level policy makers.

Various factors encouraged the rapid development of these LACs among postsecondary institutions: application of technology for individualized learning; response to lowered admission standards; focus on cognitive learning strategies; use as a program to increase student retention; and provision of learning enrichment environment for all students, despite the previous level of academic performance (Enright, 1975). The LAC was viewed as a catalyst for improved learning across the campus. Rather than continuing the previous practice of preparatory programs and remedial courses that were often outside the heart of the college, these centers were central to the institutional mission (Hultgren, 1970; Kerstiens, 1972). Faculty members often recognize these centers as extensions of the classroom and as a means for deeper mastery of college-level content material. "The resource center does not define the goals of the learning it supports; it accepts the goals of the faculty and the students" (Henderson, Melloni, & Sherman, 1971, p. 5). It was common for an LAC to be a consolidated and centralized operation that was housed in a single location on campus. White, Kyzar, and Lane (1990, pp. 185-189) reviewed the common space requirements for LACs. Because of the variety of services provided by the centers, extensive space was necessary to house tutorial areas, classrooms, computer labs, staff offices, curriculum materials, and other spaces.

Lissner (1990, pp. 132-133) states that LACs were the natural evolution of the various student support programs that were created after the Civil Rights legislation of the 1960s. Integration of various components was required to bring together instructional media centers, writing centers, reading laboratories, study skill centers, and individual audio tape tutorial centers. Many of these activities were supported by grants awarded during the previous decade; therefore, it was necessary for the colleges to institutionalize or eliminate the components. Coherence was brought to the various activities through a common philosophy.

A major departure of the mission of the LACs was to embrace the enrichment and development of all students on campus, not just the smaller number who were the least academically prepared and needed remedial assistance. Individual student interventions and course-related services were both provided.

Historical Development of Supplemental Instruction (SI)

Supplemental Instruction (SI) was created at the University of Missouri-Kansas City (UMKC) in 1973 as a response to a need at the institution created by a dramatic change in the demographics of the student

body and a sudden rise in student attrition. UMKC was formerly the University of Kansas City (UKC), a small, private university founded in 1930. Although UKC was in an urban area, its private status only permitted academically well-prepared students to be admitted. In the early 1960s UKC fell upon hard financial times and made itself available for purchase by the State of Missouri. After the University of Missouri system purchased UKC in 1963, there was a dramatic change in the student body. Besides reducing the academic selectivity of the student body, the institution quickly grew through the acquisition of independent professional schools of law, dentistry, pharmacy, and a conservatory of music. The undergraduate body had a lower level of previous academic achievement than before due to the less selective admissions criteria, but the same faculty who had high academic expectations for students from the UKC era continued to teach at the institution. As a direct result of a growing mismatch between faculty academic expectations and student academic capability, attrition at the institution quickly increased from 20% to 45% (Widmar, 1994).

Rather than choosing the traditional course taken by many institutions during the early 1970s to offer remedial classes or provide a centralized LAC, UMKC chose another course. Well before the trend in some areas of the country during the 1990s that has prohibited developmental or remedial education courses at public four-year institutions, the University of Missouri system had already prohibited such courses in the 1970s. Another delivery system for learning assistance and developmental education was required to meet student and institutional needs.

In 1972 Gary Widmar, Chief Student Affairs Officer, hired Deanna Martin, a then doctoral student in reading education, to work on a $7,000 grant from the Greater Kansas City Association of Trusts and Foundations to solve the attrition problem among minority professional school students in medicine, pharmacy, and dentistry. Martin used her knowledge from her recent graduate studies along with a national survey of learning center directors to identify common concerns with traditional approaches to helping students: services were ancillary to the institution; standardized tests were insufficient to predict students who needed assistance; services were often provided too late for help to students; students did not have time or money to enroll in additional developmental courses; students displayed difficulty in transferring study strategies to the academic content courses; individual tutoring was expensive; students often did not avail themselves of services for fear of being stigmatized; and evaluation of learning services was inadequate (Widmar, 1994, pp. 4-5).

The need for a different approach was presented in 1972 when an apparent paradox was encountered at UMKC, namely how to reduce student attrition when there is negligible funding for creation of a comprehensive LAC and the faculty will permit neither remedial nor developmental coursework. This was the paradox created by the University of Missouri-Kansas City university-wide retention committee in 1972. Although members of the university-wide retention committee were keenly interested in improving student persistence, resources were scarce. Faculty members on the committee argued that any available funding should go directly into the departmental budgets because they were the ones who had regular, sustained contact with the students in the classrooms. Generally, faculty believed they were best equipped by training, by intellect, and by academic commitment to meet student needs. Administration countered by pointing out that giving departments funding for teaching improvements and tutoring had proven unproductive; attrition statistics remained appallingly high. The faculty parried by arguing that if administration would only recruit better students, the discussion would be moot. The committee's only area of agreement was on the need to evaluate rigorously any future effort to support student learning on the campus.

Deanna Martin proposed a plan that appealed to the UMKC retention committee on several grounds. First, SI as she proposed it could be evaluated in terms of reduced attrition and grade improvement in core curriculum courses. If the percentages of top grades rose in courses where SI was provided, and if D and F grades and Withdrawals fell, it might be reasonable to infer that SI had made a difference in an otherwise stable course. Second, the committee suggested controlling for several potentially confounding variables: motivation, professor, type of test, text, grading standards, and various academic and demographic factors. Third, the committee wished to avoid an implication that student support was remedial. They recognized that SI would not be perceived in those ways if the SI program in each course began

well before the first examination scores were recorded and if SI were open to all students in the class on a voluntary basis. Fourth, faculty were attracted to SI because of the small fiscal commitment to the pilot program and because it required a minimum of faculty time. Finally, they liked the idea that SI would promote independent learning by the students.

Martin successfully pilot tested what would become Supplemental Instruction in 1973 during a human anatomy class at the UMKC School of Dentistry. Additional grant support was gained from the U.S. Department of Education (USDOE) Health Careers Opportunity Program ($447,685 funded from 1976 to 1980) and Greater Kansas City Association of Trusts and Foundations ($180,000 funded from 1977 to 1979) to expand the SI program. With this significant financial support, SI was used successfully in a variety of courses in the professional schools of dentistry, pharmacy, and medicine. The SI program was then implemented at the undergraduate level in 1981 after its success with the rigorous courses in the health science professional schools (Martin et al., 1983).

The original name for the program was Supplemental Course Instruction. Several years later the name was shortened to Supplemental Instruction. This has been the predominant name of choice by 95% of U.S. institutions (Arendale, 2000). The name was never meant to imply that additional knowledge or instruction was to be supplied by the SI leader. SI sessions have always been structured to review what was presented in the previous class lectures and assigned material from the textbook. The UMKC SI staff has considered other names, but they decided to stay with SI because it had such a large body of professional literature. However, other names have been used outside the U.S. due to political or practical reasons. In the United Kingdom (UK) the more common term is Peer Assisted Learning (PAL). This name was used because it avoided the appearance that SI was a competing form of instruction with the institution's full-time faculty and staff members. At most UK institutions there are full-time professional tutors who work closely with the course instructors in the delivery and review of the content material. SI had to be carefully positioned so as not to seem to compete with the professional tutors. Deanna Martin met with national education labor representatives to clarify the role of the SI program and how it enabled students to be more prepared for the tutorial services and class lectures. Even after these informal negotiations were resolved to the satisfaction of all parties, the name of the program was still potentially confusing. The UK educators who were interested in SI developed an alternative name for the program, PAL (J. Wallace, personal communication, July 16, 2001). In Australia the term of choice by many who have implemented the SI program is Peer Assisted Study Sessions (PASS). Both PALs and PASS emphasize the fellow student collaborative focus of the groups. The choice of using the word "learning" in the PAL name reflects an important emphasis on what occurs during the study sessions.

As described earlier in this chapter, social change is more likely to occur as a practical response to specific events than as the implementation of a well-developed ideology. The choice to implement SI at the graduate and professional school level was made because that was the area identified by the UMKC retention committee and substantial grant funds were available. Beginning with students who most viewed as the academically elite at the institution and providing an academic intervention that improved their academic performance brought tremendous credibility to the fledgling SI program for its implementation with the undergraduate courses. Based on the elitist culture held by many UMKC faculty members, most of whom were holdovers from the UKC era, if SI had first been implemented with first-year classes the program might have never been used with the graduate and professional schools, who often viewed their students as different and better than the rest of the institution. It would have been easy for many faculty members to have dismissed SI as something designed for less able students and not appropriate for the premiere, highly selective students. Part of the universal appeal of the SI program is the academic improvement for students from a wide range of academic ability levels and course content areas.

A chance meeting in Washington, D.C., during 1978 was pivotal for eventual national and international dissemination of the SI model. Up to this point the SI program prospered on the UMKC campus, and information about it had been shared through several conference presentations, individual consultations, and a self-produced manual eventually made available through ERIC (Martin, Lorton, Blanc,

& Evans, 1977). A few schools in the Midwest had started their own pilot SI programs. At a federally-sponsored education conference held in Washington, D.C., Deanna Martin and Clark Chipman met and talked about SI. Chipman was a regional administrator for the U.S. Department of Education with responsibility for higher education programs. He was very interested in education programs that promoted academic achievement for college students, especially those from first-generation and academically or economically disadvantaged backgrounds. Chipman encouraged Martin to learn more about the National Diffusion Network (NDN) under the Office of Educational Research and Improvement of USDOE (C. Chipman, personal communication, August 27, 2001).

The NDN was a nationwide system created in 1974 with a modest $14 million annual budget to improve American education through the implementation, in local schools and other settings, of rigorously evaluated, effective education programs. Developer Demonstrators (DDs) are locally developed effective educational projects validated by a federal panel of program evaluation experts. Approximately 450 DDs were validated by the NDN over a period of 20 years, of which approximately 25% received USDOE funds to nationally disseminate their programs through training workshops, awareness presentations, publications, and technical assistance. NDN validated programs were used by nearly five million school children annually in 80,000 classrooms in 32,000 U.S. schools. Rather than requiring each school to "reinvent the wheel," the NDN sought to validate locally-developed practices and provide funds for national dissemination. The estimated investment to develop an NDN practice was $400,000, while the cost to adopt the practice by another school was approximately $1,000 (National Diffusion Network, 1993).

Chipman encouraged Martin to collect data and submit an evaluation study for review of the Joint Dissemination Review Panel (JDRP) of the NDN to seek validation as an Exemplary Educational Program and to become a DD. The JDRP was the program evaluation unit within NDN. This designation by NDN for USDOE would be critical for attracting more national attention because it was an external validation of the efficacy of the SI program for improving student achievement. It would also permit the SI program to seek funding from USDOE, supporting national dissemination of the program to other peer institutions in the U.S. Three areas were evaluated by the JDRP: convincing results of effectiveness, appropriate and rigorous program evaluation design, and potential for replication at other institutions (Ralph & Dwyer, 1988). UMKC submitted data from its own program and also from several other colleges that had implemented pilot SI programs as well. UMKC has collected SI research data from nearly 300 institutions in 7,500 classes with a combined enrollment of nearly a half million students. These research studies continue to replicate earlier research studies (Arendale, 1999).

In 1981 the SI program received its certification as an Exemplary Educational Program from JDRP. The SI program received validation under two outcome areas. Claim Type 1 was for improved academic achievement. This was demonstrated by higher final course grades by SI participants in the targeted classes. Claim Type 2 was for improved student attitude and behaviors. This was demonstrated by lower withdrawal rates from the targeted classes and higher rates of persistence toward graduation by the SI participants (S. Rubak, personal communication, December 10, 1981). SI was the first program certified by the USDOE as contributing to increased college student academic achievement and persistence toward graduation. The SI program was reevaluated and successfully recertified by the JDRP and its successor, the Program Effectiveness Panel (PEP), in 1985, 1988, and 1992. Due to federal budget cuts during the mid 1990s under the Clinton Administration, the NDN and the PEP were eliminated and so were opportunities for recertification and funding for dissemination activities from USDOE.

Although many SI-related publications have been written by staff from UMKC, a major article was published in 1983 that would prove critical for future dissemination activities. The Journal of Higher Education in that year published "Breaking the Attrition Cycle: The Effects of Supplemental Instruction on Undergraduate Performance and Attrition" (Blanc, DeBuhr, & Martin, 1983). This article gained public and professional attention for the SI program outside the circle of developmental education.

In 1984 federal funds were provided through the NDN to support national dissemination of the SI model to other campuses. The initial application to NDN was not funded in 1982. Clark Chipman, who had continued to monitor the SI program at UMKC,

followed up with the NDN Director after the initial funding refusal. Part of the reason cited by the Director for denying the funding was that the NDN had focused its funding priority on education practices at the elementary and secondary level because there were few NDN approved higher education DDs. Chipman requested a critical review of NDN approved higher education proposals during the next funding cycle. The first year of funding for SI dissemination was provided in 1984 (C. Chipman, personal communication, August 27, 2001).

Until the NDN agency demise due to federal budget cutbacks by the Clinton Administration that recommended its elimination in the mid 1990s, USDOE provided nearly $800,000 to UMKC over a decade to support national dissemination. When federal funds were cut, UMKC raised the revenue necessary to continue national and international dissemination by charging moderate fees for attendance at the three-day SI Supervisor Workshops that are held by the University nine times each year in Kansas City with many other ones conducted around the U.S. and in other countries. May Garland from the Center directed the early dissemination efforts and managed the USDOE grant. Garland was followed by Mary Gravina, Dr. Kim Wilcox, and now the national training and research efforts are directed by Dr. Sydney Stansbury.

To expand dissemination efforts by UMKC staff, a group of Certified Trainers (CTs) was established. The CTs were invited by the UMKC staff to conduct SI Supervisor training workshops and provide consulting services to institutions in their geographic area. The CTs had already established a thriving SI program on their home campus and had institutional support to help other colleges successfully implement SI. To date, a dozen faculty members or administrators from institutions in the U.S. and colleagues from Australia, Mexico, South Africa, Sweden, and the United Kingdom have been selected for this honor and service, based on their expertise and area of interest. For example, Dr. Julia Visor from Illinois State University in Normal, Illinois, has enriched the SI network through her skill with SI as it is combined with knowledge of federally-funded TRIO programs and expertise with research, especially related to affective domain variables. The first CT outside the U.S. was Jenni Wallace from the United Kingdom (UK), who has combined her expertise of SI along with institutional quality measurement and instructional improvement. Through her leadership, nearly 50 UK institutions have implemented SI and the UK SI Network hosts annual SI Leader and SI Supervisor conferences.

To date, faculty and staff from more than 860 institutions in the United States and an additional 165 institutions in 12 countries have attended SI Supervisor training workshops. On average approximately 50 new institutions are trained each year to start their own SI program. The first institution to implement the SI program and continue to operate was established in 1979 at Bethel College in North Newton, Kansas. It was started by Dr. Sandra Zerger, later to be selected as a CT, who received permission from the USDOE to revise a recently awarded Title III Strengthening Institutions grant by redirecting funds from a tutoring center and instead fund a pilot SI program. Formal training workshops and curriculum materials had yet to be established, so Deanna Martin and staff from UMKC drove over to Bethel College, located in central Kansas, and consulted with Zerger as the pilot SI program was started (S. Zerger, personal communication, August 29, 2001).

It is estimated that more than a quarter million students participate in SI during each academic term. Approximately 450 professional articles, research studies, conference proceedings, and other forms of media have been written about SI by staff from the SI Center at UMKC and other SI administrators and scholars from around the world (Arendale, 1999). Research studies have consistently replicated the findings that SI is a cost-effective program that contributes to increased academic achievement, persistence, and graduation rates (Martin & Arendale, 1993). A wealth of information about SI is available at its website (http://www.umkc.edu/cad/si/).

Overview of Supplemental Instruction

SI is a student academic assistance program that increases academic performance and retention through its use of selected collaborative learning and study strategies. The SI program targets traditionally difficult academic courses, those that typically have a 30% or higher rate of D or F final course grades and course withdrawals (e.g., algebra, chemistry, anatomy). SI provides regularly scheduled, out-of-class, peer-

facilitated sessions that offer students an opportunity to discuss and process course information (Martin, Blanc, DeBuhr, Alderman, Garland, & Lewis, 1983; Martin, Lorton, Blanc, & Evans, 1977).

SI sessions are extensions of the classroom where students continue the learning process initiated by the professor (Wilcox, 1995). Rather than being limited by the prescribed classroom time, students can attend SI sessions as often as they want throughout the academic term to receive the assistance that they need and to engage in intellectual inquiry. Students receive continuous feedback regarding their comprehension of the classroom material, thereby giving them opportunity to modify their study behaviors before major examinations are administered by the professor. Immediate feedback received during SI sessions enables students to quickly modify study behaviors to adapt to the academic rigor and requirements of the course. Many students respond to SI because they perceive that their need for academic assistance is met in the sessions (Martin, 1980). Professors participate in the SI program at the level that they choose. Some faculty members report significant professional development opportunities for themselves that are described later in this chapter.

Assistance begins in the first week of the term. The SI leader, a former successful student of the same course, introduces the program during the first class session and surveys the students to establish a schedule for the SI sessions. Attendance is voluntary. Students of varying abilities participate, and no effort is made to segregate students based on academic ability. Many academically underprepared students who might otherwise avoid seeking assistance will participate in SI as it is not perceived to be remediation, and there is no potential stigma attached (Martin & Blanc, 1981). Unintended stigmas commonly associated with remedial programs can cause motivation problems for developmental students (Somers, 1988).

SI sessions provide a way to integrate "what to learn" with "how to learn." SI allows students to develop the needed learning strategies while they are currently enrolled in college degree credit courses. SI avoids the remedial stigma often attached to traditional academic assistance programs as it does not identify "high-risk students" but identifies "historically difficult classes." SI is open to all students in the targeted course; therefore, prescreening of students is unnecessary. Beginning the first week of the term allows the program to provide academic assistance during the critical initial six-week period of class before students face their first major examination in most courses. Attrition is highest during this period (Noel, Levitz, Saluri, & Associates, 1985).

SI focuses on historically difficult courses that often share the following characteristics: large amounts of weekly readings from both difficult textbooks and secondary library reference works; infrequent examinations that focus on higher cognitive levels of Bloom's (1982) taxonomy; voluntary and unrecorded class attendance; and large classes in which each student has little opportunity for interaction with the professor or the other students. Some researchers (e.g., Christie & Dinham, 1991) have concluded that it is difficult to rely solely upon the analysis of high school grades and standardized college entrance examination scores to accurately identify all students who will withdraw from college. Less than 25% of all students who drop out of college were involuntarily dismissed by their institution for failure to meet minimum academic performance standards such as a sufficient cumulative grade point average (Tinto, 1993). Many leave the institution due to extreme difficulty and frustration in high risk courses (Noel et al., 1985).

Designating a course as historically difficult makes no prejudicial comment about the professor or the students. It is a numerical calculation that suggests many students have difficulty in meeting academic requirements for the class. Rather than blaming the students or the professor, the designation suggests that additional academic support is needed for students to raise their level of academic performance to meet the level deemed appropriate by the classroom professor. In recent years, the popular and professional literature has been replete with extensive discussions about who is at fault for the perceived lower quality of student academic achievement. SI bypasses this issue and provides a practical solution that helps students meet or exceed the professor's level of expectation.

In recent years, several new objectives for SI have been implemented. One is its use as a follow-up to First-Year Experience courses. The SI program is uniquely suited to serve as a companion of a campus First-Year Experience program because it: (a) provides immediate application of learning strategies to content courses; (b) encourages formation of learning

communities composed of students who seek higher academic achievement; (c) addresses common factors in student attrition; and (d) meets or exceeds academic expectancy levels of historically difficult first-year courses (Martin & Arendale, 1993). SI is an excellent follow-up activity for students who have participated in First-Year Experience programs.

A challenge for first-year student programs that are conducted before the beginning of the academic term is that they often rely on lectures concerning study strategies. These instructional sessions are usually isolated from the actual content material in college courses. Students often feel frustrated when faced with abstract lectures concerning study skill instruction that are dissociated from college content material. Rather than seeing the need for such instruction, many students associate study skill strategy review as appropriate for "other students," those who need remedial or developmental assistance. Students perceive a vested interest in study skill strategies when the skills are directly applied to content courses that the students are currently taking. Faced with an impending exam, students are receptive when they might otherwise be uninterested.

Besides helping students to increase their retention and understanding of course material, the SI program has been effectively used for faculty development and renewal. Faculty can choose to do one or more of the following: adopt strategies used in the SI sessions during regular class time; receive informal feedback from the SI sessions concerning what the students understand and need related to additional assistance; and learn new strategies as they serve as mentors to the SI program student leaders. Additional benefits mentioned by Australian faculty members include: increased rapport with students, membership in national and international SI network, increased recognition from their colleagues, additional opportunities to obtain grant funds, and increased satisfaction with their teaching role (Gardiner, 1996).

Contribution of Supplemental Instruction to Developmental Education

SI provides another paradigm to the field of developmental education for academic assistance to students. The shift from focusing on a targeted subpopulation of at-risk students to a broader range of students enrolled in historically difficult courses established another precedent for mainstreaming the best practices of developmental education with a wide range of students throughout the institution. This foreshadowed the current focus on many campuses with creating an enriched learning environment for all students.

The Hierarchy of Learning Improvement Programs (Keimig, 1983) provides a conceptual framework for SI. Keimig differentiated education programs based on two criteria: the comprehensiveness of the program and the degree to which the program was institutionalized into the overall academic delivery system. Highly effective programs were not isolated, but were integrated into the heart of the institution. From lowest to highest, the four levels of programs in Keimig's hierarchy were: isolated courses in remedial skills, tutorial assistance to individual students, course-related supplemental learning activities, and college courses that have been significantly changed and have comprehensive learning systems built into them.

Using Keimig's model, programs similar to SI were ranked near the top of the effectiveness scale because

> students' learning needs are presented as being necessary because of the nature of the objectives and content of the course rather than because of students' deficiencies. Therefore, all students have access to supplementary . . . instructional experiences which benefit nonremedial students as well. (Keimig, 1983, p. 23)

Keimig's description of the highest level of program in the hierarchy, the comprehensive learning system, was reserved for classes where the class instructional delivery system has been significantly changed by integration of affective domain needs, learning skills, prerequisite knowledge, and cognitive mastery outcomes. UMKC developed its version of this level of program with the creation of Video-based Supplemental Instruction (VSI) in the early 1990s (Martin & Blanc, 1994).

Another way to look at the paradigm offered by SI is through an analogy of comparing a traditional medical model of treating a patient as opposed to a community health model that makes systematic changes

in the environment that positively influences all individuals (Martin et al., 1977). Traditional individual tutorial practices during the time that SI was created in 1973 may be described as following a medical model: an individual is identified as needing professional assistance based on prior academic performance and diagnostic testing, self-referral in response to perceived symptoms, or referral by another professional in response to observed symptoms. The developers at UMKC found that several assumptions of the medical model either did not apply or were not practiced in their institution.

The traditional model relies on identification of the high-risk student, the student who is deemed to be deficient or at risk in some way. Such prematriculation identification was very difficult. First, entering students must be known to the faculty and staff in time for key personnel to establish contact with at-risk students. Second, it must be noted in this context that neither prior performance nor standardized testing is sufficiently reliable as a prediction criterion of who is and is not at risk. As many as 50% of those whose prior scores suggest they are at risk prove to be successful without intervention, and many of those who are not identified in this manner prove to be unsuccessful (Martin & Blanc, 1981). Analysis of high school grades and standardized college entrance examination scores do not identify all students who will drop out of college for academic reasons (Blanc et al., 1983; Christie & Dinham, 1991; Martin et al., 1983; Tinto, 1993).

Attrition cannot be addressed effectively by providing help only to those students who show either symptoms or predisposing weaknesses. The treatment must be more generalized, and the problem must be addressed at or near its source, the mismatch between the level of instruction and the level of student preparation (Martin et al., 1977). Timely identification of students who are at risk is difficult. Faculty who can refer students for corrective instruction are rarely able to make a referral before the scoring of the first course examination. Students who are referred after that time are at a considerable disadvantage, trying to catch up with the class after a very poor start. The rate of student attrition across courses is greatest in the first six weeks or after the first exam, when students may find their grades disappointing (Blanc et al., 1983; Noel et al., 1985). Students who are at risk are among those least compliant with faculty recommendations for special help, whether for personal counseling or for academic assistance. Such students often perceive that tutorial help, far from relieving them of their academic burden, increases the burden as they must now answer to a tutor besides the course professor. Finally, students who are at risk are notorious for their reluctance to refer themselves for assistance until much too late. Whether through denial, pride, or ignorance, students who need help the most are least likely to request it. So goes the axiom of the learning assistance trade (Somers, 1988).

Rather than pursuing the traditional medical model, the SI program is more analogous to a community health model. In this model, the focus is shifted from individuals to the environment in which they live and work. An example of this shift is the widespread use of free or reduced cost inoculations against childhood diseases. It was less expensive and more effective for all children to receive the inoculations than to spend enormous amounts of public tax dollars treating the diseases that would come later to a few individuals.

The community health model requires the policymakers to make changes in the living environment rather than placing the responsibility or blame upon the individuals. This shift eliminates blame from anyone and instead puts the focus on developing a proactive systemic solution before problems occur. In his review of research, Steele (1997) has identified the harmful effects of negative stereotyping upon African American students. An enriched and supportive learning environment for all students is preferable to arbitrary activities that cohort students based on race or previous academic achievement. Steele's research stated that "in school domains where these groups are negatively stereotyped, those who have become domain identified face the further barrier of stereotype threat, the threat that others' judgments or their own actions will negatively stereotype them in the domain" (p. 613).

SI avoids the stereotype threat by offering a service to all students in the class rather than attempting to predict which students will need to attend. Students who are negatively stereotyped generally perform more poorly academically than if the stereotype was not promoted either directly or indirectly by the institution and the academic culture that it creates. SI is a

systematic program for the learning environment rather than a treatment for identified individuals.

A conscious decision was made to base the SI model on a developmental perspective because that places the burden of responsibility on the service providers. Such a theory base assumes that the students will learn if the conditions for learning are in place. The leading researcher in the developmental field at the time the SI model was created was Jean Piaget (Piaget & Inhelder, 1958). Robert Blanc is to be credited with anchoring SI in a developmental framework and designing original research studies (Blanc et al., 1983; Martin et al., 1977).

Summary

Supplemental Instruction is another vehicle for delivering the best practices of developmental education into the mainstream of higher education teaching and learning. As U.S. higher education continues to increase opportunity and access for historically underrepresented student groups, the need for developmental education will continue to increase. Developmental education will need to continually evolve using new emerging theories of learning and research-based practices to meet the practical education needs of students and the pragmatic political environment in which it must operate.

The concurrent development of "what to know" with "how to know it" using the SI methodology was a unique innovation at the time of its creation. Initially designed for academic support of students, the program has blossomed in new, unanticipated areas. In recent years the SI program has spread to more than a dozen countries outside the U.S. Many of these SI programs report the utility of SI for professional development of classroom professors and the SI leaders themselves. With the arrival of distance learning programs, there is an expectation of providing student services on-line. With the current focus on providing learning communities throughout higher education institutions, increased attention has been placed on SI programs as they compliment and support student learning for a wider range of students in classes that may not be historically difficult. More educators see SI as an enrichment program for all students to help them more deeply master rigorous course content.

It has been nearly three decades since SI first appeared in higher education. After starting at UMKC in 1973, SI has been implemented at approximately 1,000 colleges in the U.S. and a dozen countries. As new theories of learning have emerged, the SI model has incorporated the best into the evolving model. SI is flexible to meet the learning needs of students and complement an enriched learning environment managed by the classroom professor. It extends the classroom learning environment and manages student study time to maximize its use in mastering difficult course content. SI is a valuable partner in increasing the efficiency and effectiveness of learning.

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Recovering the Vision of John Dewey for Developmental Education

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John Dewey, educator and cultural critic, has left a radical legacy not always understood. This overview of the life and work of a preeminent American pragmatist and education visionary will help contemporary developmental educators revisit central questions about the purpose of our educational system in the larger society, as we face ongoing threats to the essential values of democracy and to equal opportunity for all citizens to contribute meaningfully to our common lives.

One of the often overlooked but significant influences on developmental education was the work of John Dewey (1900, 1902, 1910, 1916, 1938; Dewey & Dewey, 1915), whose writings were formative in American education earlier in this century, and are still very pertinent to current issues and discussions in the field of developmental education. Dewey's philosophical writings on education stemmed from his perception of the threats to ideals of American democracy inherent in the radical social changes and disruptions of late nineteenth century industrialism, immigration, and urbanization. He called for new ways of educating students, beginning in the early grades and continuing through the university level, that would safeguard the values of democracy by turning American schools into counter-cultural institutions, communities of teachers and learners whose experience together would lead to revitalized social institutions beyond the schools. As part of his vision of education, Dewey called for high level college research and teaching on pedagogy.

The following discussion will examine the contemporary value of the work of Dewey, focusing on his critiques of the failure of American education to transform society and suggesting ways to once again bring into developmental education his vision of democracy, empowerment of all parts of our society, and the full use of each citizen's individual gifts. Because Dewey's work is less known today than it should be, the discussion will also include an overview of his career and contributions.

John Dewey's Life and Legacy

In the introduction to selections from the writings of John Dewey presented in his collection of readings in the philosophy of education, Steven Cahn (1997) characterizes Dewey's philosophy of education as "comparable in scope and depth to that of Plato" (p. 274). Cornel West (1989) praises Dewey's philosophical contributions as constituting "the highest level of sophisticated articulation and engaged elaboration" (p. 69) of American pragmatism; and classical American pragmatism is, he argues, a rich resource for contemporary scholars to turn to in an "attempt to reinvigorate our moribund academic life, our lethargic political life, our decadent cultural life, and our chaotic personal lives for the flowering of many-sided personalities and the flourishing of more democracy and freedom" (p. 4).

Dewey's work was centered on the role of education in helping to assure that the highest form of democratic society could be promoted. He felt that conditions of industrialism and urbanization, among other disruptive late-modern conditions, threatened democracy, and that of all social institutions, the public school system was the most fruitful location for creating conditions for social change. Though contemporary scholarship (West, 1989) suggests that Dewey lacked a systematic political theory that would flesh out how his transformative vision of a truly democratic society could be obtained, this chapter argues that revisiting Dewey's work will reveal how very timely his vision

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remains, and that, far from having surpassed his vision of both the purpose and the techniques of education for America, his work still poses challenges to us.

Born in 1859, Dewey was influenced by his mother's ardent religious faith. He himself was an active evangelical Congregationalist, leaving the church only after his marriage to his first wife, freethinking Alice Chipman. However, the belief in human progress and commitment to social reform prompted by his religious faith remained a strong component in his philosophic writing through out Dewey's life (West, 1989, pp. 77-78). Alice Chipman was a social activist who exposed Dewey to the ways in which late nineteenth century capitalistic industrialism was creating social problems of great magnitude. West (1989) points out some features of this situation: rapid population growth, primarily through immigration; an enormous boom in manufacturing plants, expanding production ten-fold over 40 years through exploitation of "apparently inexhaustible" (p. 79) raw materials and plentiful cheap labor; the growth of the managerial and professional classes; and the gradual displacement of rural America as a center of American culture.

Initially, Dewey's impulse when becoming conscious of the dislocations and sufferings resultant from this rampant expansion of industrialism was to try to raise the consciousness of the working class through a plan of publishing a radical newspaper, which would be titled Thought News. However, the publication never appeared. Dewey became aware that his career as a philosophy professor would be in danger; he would be "marginalized or even banished by the professional elements of the middle class" (West, 1989, p. 83), which retained his loyalty through his life.

Dewey's next experience of attempting to bring about social change moved him into the direction of educational reform, which remained his focus as the primary location for social change throughout the rest of his career. In 1884, Dewey moved to Chicago as the chair of the department of philosophy, psychology, and pedagogy at the University of Chicago. In Chicago, he founded the University Laboratory School, where his wife served as principal for two years. West (1989) characterizes Dewey's aim in founding his school as "a form of political activism in that the struggle over knowledge and over the means of its disposal was a struggle about power" (p. 84). Dewey also spent time in Chicago visiting Hull House (West, 1989) and involving himself in its activities. These experiences were formative in Dewey's philosophic work, and he began to write about education and its role in safeguarding American democracy.

In 1904, Dewey left Chicago for Columbia University in New York, which had created a chair in philosophy for him. In that setting, his philosophic work matured, and he began a long and prolific career of publications in philosophy, including key works in the philosophy of education, among them The Child and the Curriculum (first published in 1902), and The School and the Society (first published in 1900), which were written at the time of his involvement in the University Laboratory School; Democracy and Education, published 14 years later; and Experience and Education, written in Dewey's late seventies. Another early key work revealing Dewey's ideas about education is How We Think, first published in 1910. The following discussion about the ongoing relevance of Dewey's work to the field of developmental education is based on these key texts.

Certainly, in brief scope, one cannot do much more than be suggestive of the value of such a complex thinker. The key to emphasize is that Dewey's work calls us to refocus our attention on the big questions in educational philosophy, which is to reexamine the purpose and role of education in society. Education can be described as one social institution in which social structures are reproduced. If that were all that was possible within education, the emphasis on theory would be properly placed on understanding ways that pedagogy and educational structures could be enhanced to more effectively prepare students to fit their appropriate social roles and perform their appropriate functions.

In contrast, Dewey argues that individuals and groups within society have a moral and practical responsibility to create social change in keeping with changing conditions of society. In a democratic society, he believed, the most centrally situated social institution to effect social change was the public educational system, which had a responsibility to guide learners toward conscious, active participation in the changing conditions of society. For education to be effective in producing positive social change, all sectors and individuals in society need to have equal access to

the fullest range of educational opportunities. The essential product of education, he argued, was not the replication of existing static knowledge, but the creation of creative intelligence in students as citizens, to prepare them for conscious, planful, and considered participation in all sectors of society.

The educational process, for Dewey, is an actual experience of engaging in that process of shared interests that is democracy. At its best, education is not a preparation for community, but is a structured communal experience designed to maximize students' development of critical intelligence, as well as giving them the experience of engaging in a living community that involves all sectors of society in a way that the students experience first hand the value of forging mutual interests toward common goals. Education is to be experience based and purposeful. For Dewey, learning is best accomplished in a structured and supportive environment that builds confidence, skills, and critical awareness in service of further action.

To better give a flavor of the nuance and timeliness of Dewey's educational philosophy, three important concepts will be highlighted below: Dewey's understanding of democracy; the importance of inclusiveness; and Dewey's characterization of critical thinking, described by West (1989) as "critical intelligence" (p. 97).

Democracy

In Dewey's (1916/1997) thinking, democracy requires awareness of the "mutually interpenetrating" (p. 292) interests of all sectors and individuals in society, and attention to changing conditions that affect them: "A democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience" (p. 292). Dewey recognizes that education has been used by nations to foster patriotism, but suggests a more global reach is the proper scope of education, for a "fuller, freer, and more fruitful association and intercourse of all human beings with one another" in order to free the capacities of each individual "in a progressive growth direction directed to social aims" (pp. 300-301).

Embedded in these quotes are some of Dewey's key views: one is that the location for democracy is in the individual as acting in conscious awareness of his or her social embeddedness, which is both local and global. Another assumption is that the purpose of democracy is to safeguard and promote the fullest development of all individuals in society in order that their talents and efforts can be directed toward the common good of all. Finally, Dewey has a faith that progress is possible, though by no means inevitable.

Inclusiveness

Although rejecting Marxist solutions and analysis, Dewey felt keenly the importance of including all sectors of society in active participation in democracy. A strongly worded selection from Schools of Tomorrow, first published in 1915 (Dewey & Dewey), communicates the danger Dewey saw in economic classes:

> It is fatal for a democracy to permit the formation of fixed classes. Differences of wealth, the existence of large masses of unskilled laborers, contempt for work with the hands, inability to secure the training which enables one to forge ahead in life, all operate to produce classes, and to widen the gulf between them. . . . But the only fundamental agency for good is the public school system. (p. 224)

Dewey (1916/1997) believed that stratification is fatal to democracy, because change needs to be possible anywhere in the interactive system of mutual connectedness. Aware, cooperative, purposeful individuals at all levels can best respond to the complexity of our contemporary society. Otherwise, he says, individuals,

> will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive. The result will be a confusion in which a few will appropriate to themselves the results of the blind and externally directed activities of others. (p. 293)

Critical Intelligence

The pedagogy that best promotes the creation of experimental thinking, or, as West (1989) describes Dewey's theory of thinking, "critical intelligence" (p.

97), is one in which learners are guided through experiences of discovery. This perspective is founded on Dewey's pragmatist theory that knowing is provisional and must be founded on experience, not fixed absolutes. Dewey uses the definition of scientific method as a model for critical intelligence, in which "ideas employed are hypotheses, not final truths" (Dewey, 1938, p. 361). Hypotheses, in science and in learning, must be tested and revised in view of the outcomes of experiment or action. The sequence of formulating questions, acting upon hypotheses, and reflecting on outcomes is the dynamic process of critical intelligence. The ability to engage in inquiry at this level is what constitutes the most important sort of freedom for Dewey, both in the classroom and in society, a freedom that has an ethical and a creative dimension. He describes this relationship between freedom and thinking this way: "The only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgment exercised in behalf of purposes that are intrinsically worthwhile" (Dewey, 1938, p. 348).

Implications for Developmental Education

For contemporary developmental educators, a reexamination of Dewey's work can help prompt attention to the essential questions, primary among them being the purpose and goal of education in American society. For Dewey, the purpose of education was to promote the skills and attitudes in individual learners that equip them to be productive in sustaining and enhancing democracy, which is another word for the mutually penetrating global community in which each of us lives our life. Dewey had a faith that, properly instructed and informed, individuals would choose to act in ways that are mutually beneficial, appreciating the importance of including all members of society for their gifts and potential contributions to the good of all.

Developmental educators have a similar dedication to maintaining access to education for all sectors of society, and for providing opportunities for each individual learner to become fully developed. However, there may be too little attention paid in developmental education theory to the wider social framework and the role that education can play in providing students with the critical awareness and skills they will need to become active creators of social change, especially in responding to global issues. For this, more than factual information is required; education, in Dewey's understanding, must also provide learners with opportunities to experience themselves as creative actors, participants in the ongoing life of their broader communities.

The Universi'y of Minnesota is currently embarking on a Civic Engagement Project to enhance and promote civic engagement, as described in the project website: http://www1.umn.edu/civic/index.html. This project brings together educators and community leaders to explore ways of solving social problems or of making the resources of the university available to communities in strengthening democracy as broadly understood. This effort is a quintessentially Deweyan one, recognizing that education has a key role to play in fostering social vitality beyond the walls and gates of the institution. But for Dewey, the more important outcome would be the emergence from those walls and gates of truly engaged, aware, and committed citizens, having formed their awareness in a dynamic educational experience of self discovery and empowerment as learners, ready and able to take action on behalf of communal issues in whichever social arena their opportunities, talents, and passions direct them.

For developmental educators, a key reason to revisit the writings on educational philosophy of John Dewey is to raise awareness of some central questions: What is the purpose of education in our society? How can education contribute to safeguarding and improving the best features of democratic society? What sorts of educational approaches best prepare participants in our society to contribute most effectively to the common good? In posing these questions, taking a step back to revisit the work of those of the past, such as John Dewey, who have wrestled fruitfully with these questions, will help contemporary educators reframe them productively in light of the changing conditions of current society, especially in our increasingly interconnected global society.

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History of Developmental Studies in Tennessee

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In 1984 the Tennessee State Board of Regents mandated a developmental studies program in its 20 universities and community colleges. This chapter gives the background for the mandate including the reasons for the creation of the program, the highlights of the White Paper, and the initial guidelines for program implementation. The authors share information on mandatory assessment and initial enrollment statewide. The history of the program is tracked through seven major guideline changes and two major program evaluation projects.

In 1984, the Tennessee State Board of Regents (TBR) mandated a program of remedial and developmental studies that included a comprehensive mandatory assessment procedure, mandatory placement of underprepared students by level of deficiency, and a comprehensive support system. As with most educational reform programs, the impetus for TBR's remedial and developmental initiative came from published reports of the academic need of students, legal settlements, and legislative design.

The first push for the establishment of this program came with the publishing in 1983 of Academic Preparation for College: What Students Need to Know and Be Able to Do by the College Board. Academic Preparation for College began with the premise that in order to improve the retention and ultimate graduation of students at the higher education level, the necessary outcomes of high school study must be identified. Academic Preparation for College outlined what college entrants needed to know and be able to do by identifying the basic academic competencies and the basic academic subjects required for college success.

Subsequently, as part of the Comprehensive Education Reform Act of 1984, Tennessee expressed legislative intent that the College Board document would provide a benchmark for measurable improvement in elementary and secondary instructional programs. Section 99 of that Act states:

> Within five (5) years after passage of this act it is the legislative intent that the instructional program shall be improved to provide measurable improvement in the subjects of Chapter II "The Basic Academic Competencies," Chapter III "Computer Competency: An Emerging Need," and Chapter IV "The Basic Academic Subjects," all as set out in Academic Preparation for College: What Students Need to Know and Be Able to Do, published by the College Board, 888 Seventh Avenue, New York, New York, 10106, 1983. (TBR, 1985, p.1)

By this action, it was asserted that college level work should presume the College Board competencies and that admitted students unable to pursue studies at that level are by definition underprepared. Because of this legislative mandate, TBR sought to define the nature of college level preparation, the levels of underpreparedness of students entering TBR institutions, and interventions for those not meeting minimum standards as set forth by the College Board. In addition, there was an implicit assumption in the role and scope of all TBR institutions that their

curriculum would build from rather than merely replicate expectations set forth in Academic Preparation for College.

As TBR set about determining the nature of college level work, the level of basic skills competencies required to do this work, and the subject matter areas for which students are expected to demonstrate proficiency, additional factors influenced the creation of the TBR's mandated program of remedial and developmental studies. At the same time that TBR was struggling with the impact of the Comprehensive Education Reform Act of 1984, another issue brought focus to the needs of at-risk students enrolled in TBR institutions. In 1968, Rita Sanders Geier had brought suit against the State of Tennessee citing Tennessee with maintaining a dual system of higher education that discriminated against African American citizens of Tennessee. The Stipulation of Settlement of this suit specifically addressed the issue of developmental education. Section II.F. required developmental education programs to promote retention of those students admitted under alternative admissions standards. It further addressed the funding and standards of such programs. Section II.K required a review of various postsecondary developmental education programs and implementation within a year of a plan designed to address the retention, performance, and progression of students at all public institutions (Geier v. Alexander, 1984).

By 1984 the state of Tennessee recognized a need for a comprehensive developmental education program. Conservative estimates were made that some 40% of all freshmen entering TBR institutions were underprepared for college level work. This percentage included students who had selected a program of study other than college preparatory while in secondary school, students who had dropped out of school and who had eventually earned their General Education Development (GED) certification, students who had disabilities that had interfered with their participation in a college-preparatory curriculum, and adults who were entering college after an extended period of time away from academic life. Although these students could all be classified as "at-risk," the White Paper (TBR, 1984b) emphasized that:

> underpreparedness does not equate with being incapable or ineducable; the causes of underpreparedness are multiple and complex; some underpreparedness results from changing social and economic conditions–factors over which schools and students have no control; everyone has a right to a "second chance" and, indeed, is cost-effective for the state to provide "second chances" for the educationally disadvantaged whatever the causes. (p. 2)

White Paper

Throughout 1984 a committee of TBR staff, representatives from the TBR campuses, and consultants developed a position paper for developmental studies called the "White Paper on Remedial and Developmental Studies." The paper established a working definition of remedial and developmental education. It included a programmatic approach, holistic in nature, rather than an aggregate of individual courses. The White Paper established a clear and precise division of the various components with a clear division of responsibility for delivering the various components of the program. It identified clear and measurable objectives for each component and subcomponent of the program as well as recommending curriculum, methodologies, and instructional and support resources for achieving the objectives. Policies, procedures, and resources for effectively implementing mandatory assessment and placement of students were initiated. Ongoing programs and resources for faculty and staff training and development were created to assure a well trained and committed faculty and staff. Critical to the success of the program were appropriate measures for evaluating its effectiveness. Most importantly, however, the program had to respond to the changing needs of students.

In the White Paper, TBR created separate definitions for "remedial" and "developmental." Remedial Studies was the "program of instruction that leads to proficiency in Basic Skills Competencies defined by the Tennessee State Department of Education as its 'Objectives for the Tennessee Proficiency Test' " (TBR, 1984b, p. 6). Developmental Studies was a "program of instruction that is distinct from Remedial Studies as defined above and that leads to the level of proficiency in the 'Basic Academic Competencies' and in the 'Basic Academic Subjects' defined by the Educational EQuality Project of the College Board as required for successful pursuit of

college studies" (TBR, 1984b, p. 6). In other words, "remedial" was the term used to describe the very basic skills needed to graduate from high school in Tennessee while "developmental" was the term used to describe the higher level skills needed to be successful in college.

Upon initial completion of the White Paper, TBR employed three nationally known consultants to review it. They were Dr. William Moore, Jr., from Ohio State University, Dr. John Roueche from the University of Texas, and Dr. Milton "Bunk" Spann from Appalachian State University. Additionally, the TBR obtained written responses and interviews concerning the first draft of the White Paper from Dr. Samuel Cargile, Director of the Office of Services for the Educationally Disadvantaged from the American College Testing Service (ACT), and Dr. Walter Jacobs, Jr., Director of Academic Support Services from the College Board. Based on their review, the TBR staff made revisions, created operational guidelines revisions (A-100 Guidelines), and predicted cost estimates (TBR, 1984b, pp. 4-5). In September 1984, the Tennessee Board of Regents approved the comprehensive plan for developmental education to be implemented Fall 1985.

Program Guidelines

Implementation of the White Paper was conducted through the Guidelines for Program Development and for Mandatory Placement of Underprepared Students (TBR, 1984a). These guidelines focused on seven areas: (a) procedures for mandatory placement of students, (b) placement assessment procedures, (c) program design, (d) program policies and procedures, (e) administrative framework, (f) faculty and staff selection and training, and (g) program evaluation.

Program guidelines required that all students 21 years of age and under seeking regular admission to TBR institutions were required to present ACT or SAT scores as a condition of admission. Students with a composite ACT score of 15 or lower (or SAT equivalent) and students 21 years of age or older were required to take a placement assessment (see Mandatory Assessment) prior to being admitted. Students who were determined through this assessment to be deficient in a Basic Academic Competency at the remedial level were not allowed to enroll in college level courses until they had satisfactorily met the exit criteria of the remedial courses. If this assessment indicated that students were deficient in a Basic Academic Competency at the developmental level, they were not allowed to enroll in regular college level courses that required that competence as a prerequisite until they had satisfactorily met the exit criteria of the developmental courses. Students with ACT scores of 16 or higher who gained regular admission but who were later found to be deficient in a Basic Academic Competency were required to withdraw from college level courses and to be assessed for possible placement in remedial or developmental courses.

The TBR administration and statewide committees recognized accurate assessment of student strengths and weaknesses as an important element of the program. Assessment was viewed as a holistic process, and no single indicator was to be used as the sole criterion for placement. The Academic Assessment and Placement Program (AAPP) was selected as the instrument used for initial screening. However, in addition to AAPP results, the students' educational records were considered in the placement decision. Individual Developmental Studies Program (DSP) directors reviewed evaluations of institutionally prepared and selected diagnostic placement tests as well as career, personal, and educational information before final placement in remedial or developmental courses occurred.

Each of the 20 TBR campuses developed proposals for remedial and developmental programs based on the standards described in the White Paper and TBR Guidelines. Although each program differed based on the needs of the individual campus, all programs had to provide for remedial and developmental courses in writing, reading, mathematics, and study skills. Because these courses were considered prerequisites for college level work, credit earned in these courses could not count for graduation. However, credit did count as institutional credit and was used for consideration of full-time enrollment, financial aid, and athletic eligibility. A holistic program of courses was designed so faculty, counselors, and tutors worked together to meet the needs of students. The program was required to provide adequate and appropriate support services (e.g., counseling, labs, tutoring), and enrollment limits were placed on courses so that students received individual attention.

The program emphasized the requisition of skills and knowledge, and restrictions were placed on remedial and developmental courses to assure academic standards. Class attendance was mandatory and was monitored. Students were not permitted to drop remedial and developmental (R/D) classes except under extenuating circumstances. The grading policy had to be rigorous and consistent with the institution, and successful completion of each remedial and developmental course required the grade of C or better. Students who after two attempts had not satisfactorily met the exit criteria for a particular course were suspended from the institution. Although remedial and developmental courses did not carry graduation credit, grades earned in these courses did appear on transcripts. Students who had successfully completed R/D courses were monitored for two terms for evaluative and counseling purposes.

The remedial and developmental program at each TBR institution was to be an integral part of the institution's academic program and fell under the purview of the chief academic officer. The guidelines required program administration by a single individual who functioned at the level of division director or department head and who reported directly to the academic officer of the unit in which the program was housed. The R/D director was responsible for the overall management, supervision, coordination, and evaluation of the program and individuals employed within the program.

To enhance student success, only those persons committed to remedial and developmental education were allowed to teach in the program. All faculty and staff in the program were to undergo the usual protocols of academic appointments and have a positive recommendation from the program administrator. Provisions for professional development and training were the primary responsibility of the R/D head and included: (a) orientation of new faculty and staff, (b) regularly scheduled meetings to discuss current research, pedagogical issues, and instructional strategies affecting the program, (c) special workshops to train staff in application of specific pedagogical principles and methods, and (e) participation in state, regional, and national professional meetings and activities.

Evaluation of the TBR's remedial and developmental program was to be continuous and involve all participants. A uniform evaluation model for the system was to be developed that included an overall evaluation for program quality and effectiveness. In addition, each component and the administrative structure went through yearly reviews. Most importantly, student performance and outcomes were reviewed yearly. Performance standards were to be established, published, and rigorously enforced. Data on the progress, retention, and graduation of program participants had to be collected on a regular basis. Audits were to be conducted by each institution to ensure compliance with all program guidelines (TBR, 1984a).

Mandatory Assessment

During the year between approval of the program by the TBR and its implementation, Fall 1985, work focused in two areas. First, each institution was required to submit a proposal to TBR describing how it would carry out program guidelines. Although each institution had to adhere to these guidelines, the uniqueness of each institution meant that each program differed in delivery methods, administrative structure, and support elements.

Second, the tests used by the TBR for its Academic Assessment and Placement Program were developed by a committee of educators from the TBR institutions and were designed to measure aspects of a student's preparation for college level academic work. The ability assessed by the tests overlapped with many of the central abilities described in Academic Preparation for College (College Board, 1983). However, the tests were developed for a specific set of purposes and were not intended to cover all the areas of skills and knowledge covered by Academic Preparation for College. All the tests were appropriate for group administration, and each of the tests, with the exception of the written essay, was a multiple-choice test capable of machine scoring (Hardin, 1985).

The AAPP had three components designed to measure readiness for college level courses. Within these three components, six tests were provided. The components and tests were

1. Writing: Students in this portion of the AAPP wrote one 20 minute essay. The purpose of the writing sample was to measure the student's ability to use standard written English and to organize thoughts.

2. Reading: Two tests were provided in the reading portion of the AAPP. The Reading Comprehension test was designed to measure how well students understood what they read and how well their abilities to see relationships between words, sentences, and ideas were developed.

3. Mathematics: Three tests were provided in the mathematics portion of the AAPP with students required to take two of the three. The first was a test of arithmetic computation skills involving whole numbers, fractions, and integers. The elementary algebra test covered arithmetic computation, roots and powers, algebraic equations and inequalities, and operations with algebraic expressions. The intermediate algebra test dealt with roots and powers, solving equations and inequalities, operations with algebraic expressions, and coordinate plane and graphs.

Initial Enrollment

When the guidelines for the new program were implemented in the summer and fall of 1985, the TBR collected the following data that showed 47.3% (see Table 1) of the first-time enrolled freshmen needed at least one course in the R/D program (Nicks, 1985).

Guideline Changes

Over the years, the Remedial/Developmental Studies Program Operational Guidelines (Guideline No. A-100) have gone through many changes. Since 1985, seven versions of the A-100 guidelines have emerged.

1990 Guideline Changes

The second set of A-100 Guidelines was approved by the various TBR subcouncils on August 14, 1990 (TBR, 1990). According to Thomas J. Garland, Vice-Chancellor of Academic Affairs, "there are two basic reasons for modifying the screening and placement scores at this time: 1) ACT has introduced a new form of the tests and concordant scores had to be established; and 2) the System has adopted two new forms of the AAPP test battery that also require the establishment of concordant scores" (Garland, 1989, p. 1). Additionally the Ad Hoc Committee on Assessment and

Table 1.
Unduplicated headcount of summer 1985 first time freshmen enrolled fall term 1985 and fall 1985 first time freshmen fall 1985 enrollment at Tennessee Board of Regents institutions

Areas of enrollment	All ages number enrolled	Percentage enrolled
Remedial and developmental	1666	9.5
Remedial only	702	4.0
Developmental only	931	5.3
College level only	9249	52.7
Remedial and college level	751	4.3
Developmental and college level	2693	15.3
Remedial, developmental, and college	1565	8.9
Total	17557	100.0

Evaluation created a report in 1988 titled The Effectiveness of the SBR Academic Assessment, Placement and Remediation Program. This committee made two recommendations relative to screening and placement: (a) raise the ACT Composite Screen Score and introduce the mandatory use of subscores in English and Mathematics, and (b) lower the Intermediate Algebra cut-off score for placement in college mathematics and lower the cut score on the Elementary Algebra test for intermediate algebra placement. The ACT Composite Score was not raised, but the other parts of the recommendation were put into effect.

Because early research on Tennessee's Remedial/ Developmental Studies Program indicated that mandatory assessment and placement were positively impacting the retention and success of participants, the 1990 guidelines mandated the assessment and placement of additional students. Transfer students who had earned fewer than 60 hours and who had not earned college level math or English courses were required to be assessed. Nondegree seeking students who did not have credit for college level math or English had to be assessed before enrolling in those courses. Additionally, students entering institutions with Carnegie unit high school deficiencies were required to take the AAPP.

Other modifications to the operating guidelines formalized operational practices that had been outlined in committee minutes and staff communications. Included was a clarification of issues concerning ACT scores. In determining assessment needs, this addition defined as invalid any ACT scores older than 3 years on the first day of class. Once the AAPP was taken, additional ACT scores would not change the results of the assessment. The revisions prohibited the placement of students in an R/D course without AAPP assessment. They disallowed retesting by the AAPP within a 90-day period and required posttesting with the AAPP for course completion. Because schools had not enforced the "two attempt rule" in which students were allowed two times to pass an R/D class before being suspended, more emphasis was placed on this guideline. The revisions mandated class size limits of 15 in remedial classes and 20 in developmental classes.

1993 Guideline Changes

In 1993 money and politics played a major part in guideline changes (TBR, 1993). At the initiation of the program, community colleges received extra money called "enhanced funding." In 1993 the enhanced funding was cut. At the universities the TBR restrictions on developmental studies funding were lifted. Many programs across the state had become quite large and costly. At one institution, a student might be required to take four five-hour courses to complete developmental mathematics while at another institution, the same sequence could be completed in three 3-hour courses. Additional clarification was required because many institutions had been required to convert to the semester system from the quarter system. Therefore, guideline changes allowed universities to offer 24 to 27 semester hours while two-year institutions could offer 24 to 30 semester hours. Because most institutions were no longer offering two levels of study skills, the remedial level of study skills was eliminated. In an additional attempt to save money, class size maximums were raised from 15 to 20 in remedial classes and from 20 to 25 in developmental classes. After a lengthy and broad-based review, cut scores were revised. Many developmental educators within the system opposed the new cut scores, fearing that students needing help would be overlooked. Other changes that occurred in the 1993 revision included mandating a counselor-to-student ratio of 1 to 300. All students 21 years of age or older were required to complete the entire AAPP battery if they did not present valid ACT scores. A decision was made that the required posttesting could not be an absolute barrier to passing a class.

1995 Guideline Changes

Two years later the fourth set of A-100 Guidelines was adopted by the TBR on August 8, 1995. After much discussion, math cutoffs were revised. The testing of transfer students was clarified by stating that testing was required for those transfer students who did not have transfer work in college level, algebra based math or college level composition. A summary of the changes from 1990 through 1995 appears in Figure 1.

Figure 1. Cut score changes from the 1985 guidelines to the 1990 guidelines.

Area	Course	1985	1990	1993	1995
Writing		20 minute writing sample	25 minute writing sample		same
Reading	Basic	27 or below	22 or below	21 or below	same
	Developmental	28-35	23-30	22-27	same
	No Reading Required	36 & above	31 and above	28 & above	same
Mathematics	Basic	25 & below (arith. test) 12 & below (elem. test)	25 & below (arith. test) 16 & below (elem. test)	21 & below (arith. test) 15 & below (elem. test)	same
	Elementary Algebra	26 & above (arith. test) 13-24 (elem. test) 12 & below (inter. test)	26 & above (arith. test) 17-22 (elem. test) 9 & below (inter. test)	22 & above (arith. test) 16-20 (elem. test) 17 & below (inter. test then use elem. test)	16-21 (elem. test)
	Intermediate Algebra	25 & above (elem. test) 13-18 (inter. test)	23 & above (elem. test) 10-17 (inter. test)	21 & above (elem. test) 17 & below (inter. test then use elem. test)	22 & above (elem. test)
	College Mathematics	19 & above (inter. test)	18 & above (inter. test)	18 & above (inter. test)	same
Study Skills		Must take Developmental Study Skills if in 2 developmental courses. Must take Remedial Study Skills if in 3 areas (remedial, developmental or combination of both)	Must take a study skills class if in 2 remedials or remedial reading; 2 developmentals or developmental reading; 1 remedial & 1 developmental	Must take if in 2 remedials or 3 subject areas Students with deficiencies in 2 areas can elect to take.	same

1996 Guideline Changes

In 1996 the TBR A-100 Guidelines were revised again to clarify confusing issues. For example, many students were presenting more than one valid set of ACT or SAT scores for admission and AAPP testing. The 1996 Guidelines standardized which set of scores should be used. In addition, the new guidelines exempted testing of students with an ACT composite of 26 or higher and students who had earned a Tennessee Honors General Education Diploma. Other changes in 1996 included permitting challenges to course placement only during first enrollment in a course. The previously recommended counselor to student ratio was eliminated. This revision instituted a grade of "WD" for students who withdrew with permission of the director. This grade did not count as an attempt at a course. Because of inconsistencies in the definition of the terms remedial and developmental, the automatic transfer of R/D credit from non-TBR schools was eliminated. The 1996 guidelines changes did not reflect cut score changes.

2000 Guidelines Changes

TBR modified once again the A-100 Guidelines in 2000 to reflect two major changes in the program. First, the term "basic" replaced the term remedial. Second, Computerized Adaptive Placement Assessment and Support System (COMPASS; American College Testing) replaced the AAPP as the state mandated assessment instrument. Current cut scores for the COMPASS may be seen at the following web site: [http://www.mtsu.edu/~cbader/act.html].

2001 Guideline Changes

TBR revisions in 2001 reflected changing attitudes toward developmental education and new systems of course delivery. The term "Study Skills" was changed to "Learning Strategies." All references to Remedial/ Developmental (R/D) were changed to Developmental Studies Program (DSP). The phrase "mandatory class attendance" was changed to "mandatory student engagement" to encompass online and distance learning courses.

With the selection of the COMPASS in 2000 as the state required assessment instrument, further guideline modifications were required. A description of the COMPASS was included in the guideline along with a table for comparison of the COMPASS and Assessing Student Success for Entry and Transfer (ASSET; American College Testing) cut scores. ASSET is the paper and pencil version of the COMPASS.

Additional changes included: (a) for placement testing classifying, a transfer student as one with nine or more hours of transferable college hours; (b) testing all transfer students, regardless of hours transferred, who did not have college level algebra based math or college level composition; (c) mandating a common set of rubrics (i.e., identification letters and numbers) for all courses; (d) listing sources for updating competency standards; (e) eliminating the "second-attempt" rule; (f) establishing a five-year cycle for site visits; (g) establishing an A-100 Guideline Standing Committee to adjust and reflect current developments in research, technology, delivery, and student profile; and (g) changing the requirements for Learning Strategies (formerly Study Skills) to "any combination of two placement subject areas."

Professional Development

Because of the mandates for faculty and staff professional development in the earliest White Paper through the current guidelines, the TBR has allocated money for a variety of activities. The money for professional development activities is set aside through the Geier stipulation (Geier, 1984). Campuses can request money through both competitive and noncompetitive grants.

Program Evaluation

The Tennessee Board of Regents' Developmental Studies Program has undergone constant scrutiny and has been evaluated in multifaceted ways. Each fall the TBR staff collects data on the program from each institution to ensure guideline compliance. In addition, TBR made site visits to each campus for review of individual programs. These visits included evaluation of adherence to the guidelines, action plans for improvement of institutional program effectiveness, institutionally generated data, and findings from student and faculty questionnaires.

In addition, a Committee on Assessment and Evaluation has conducted a comprehensive evaluation model for the R/D programs that included both

summative and formative components. Dr. Ed Morante, former Director of the New Jersey Basic Skills Council, served as a consultant in the creation of this evaluation model.

The Committee on Assessment and Evaluation has conducted two major evaluations of the R/D program. The first was completed in 1988 and had four major components: (a) Introduction, (b) Summative Indicators of Program Effectiveness, (c) Effectiveness of Program Components, and (d) Institutional Data Tables. The committee determined that the cohort data for 1985 was unusable because schools had been in the process of establishing guidelines, and there had been little coordination between institutions. Therefore, the 1986 cohort of first-time freshmen was used as the subject of this study.

A major first step was to establish definitions to be used in the study. Because students who did not successfully complete their R/D courses were suspended, the ultimate retention and success rate for these students would be 0%. This program guideline would skew the data. Therefore, subjects of the study were divided into three categories. Program noncompleters were students who were required to take R/D courses but who did not finish the requirements. Program completers were students who completed all mandated R/D course requirements. Non-R/D students were students who were never required to enroll in R/D courses. Major conclusions from the 1988 study include:

1. System wide, R/D program completers were retained at a higher rate (82.6%) than their non-R/D counterparts (77.5%) and the R/D non-completers (63.2%).

2. Of the 18,700 enrollees (duplicated head count) in R/D courses, 83% passed their R/D courses with a C or higher.

3. In college level math courses, 82.1% of R/D completers finished the courses compared with 74% of the non-R/D students. For R/D completers, 84.9% made a C or higher compared with 85.6% for non-R/D counterparts.

4. In the college level composition courses, 83.9% of R/D completers finished the course compared with 89.8% for the non-R/D counterparts. Of the R/D completers 90.2% received a grade of C or higher compared with 94.8% of the non-R/D students in those classes.

5. Of the 2,869 R/D Reading completers, 78% successfully finished a subsequent college level social science course compared to 84.4% of their non-R/D counterparts. Of the R/D completers 78.6% received a C or higher compared with 85.9% of the non-R/D students.

6. The R/D program produced positive retention results for all students regardless of age, sex, race, or enrollment status. However, the most pronounced effect was with the students 21 years of age or older. (Ad Hoc Committee on Assessment and Evaluation, 1988, pp. 9-10).

The results of this study indicated that system-wide changes were needed. Because not all students were being tested and placed as the R/D mandates required, institutions were exhorted to comply rigorously with System policy. The data also led to the conclusion that part-time students had special circumstances that warranted further attention. Special emphasis was focused on the areas of assessment, counseling, advising, placement, academic support, and the staffing of evening services for part-time students.

Based on results of the evaluation report, the effectiveness of using the ACT composite for initial screening was questioned. The committee recommended using subscores for initial testing in mathematics and writing. The committee also suggested allocating more time on the writing test, dropping part of the reading assessment (i.e., Logical Relationships), and training and compensating writing sample readers consistently across the state.

A second system-wide evaluation was undertaken in 1991. This assessment was also conducted on the 1986 cohort and covered the period Fall 1986 through Spring 1990 (Ad Hoc Committee on Assessment and Evaluation, 1991). This committee reached two principal conclusions: "First, the Committee concluded that the program has been effective in producing student completers who subsequently perform as well or almost as well as students who did not require remedial/developmental courses" (Ad Hoc Committee

on Assessment and Evaluation, 1991, p. 3). On average the students who had participated in developmental studies passed their colleges level courses at an 83% rate while students not in the R/D program passed at an 86.7% rate. In the math area, the R/D completers were passing college level math courses at a higher rate (81%) than non-R/D students (78.6%). In writing the R/D completers were passing the college composition course at a rate of 88.1% while the non-R/D students passed at a 91.1% rate. The reading completers passed one or more college level social science courses at an 82.3% rate compared with 87.6% of those non-R/D students.

The second principal conclusion the ad hoc committee (1991) reported was that the "program had been effective in bringing about a higher than usual retention rate of initially high-risk students" (p. 3). As of the spring of 1990, 34% of all the students in the 1986 cohort were still enrolled or had received an academic credential. For a comparison, the retention rate was 24% for the same amount of time (1980-1984) prior to the advent of the R/D program.

Because of the fluid nature of the program, complications arise in evaluating its overall effectiveness since 1985. Based on early evaluations, the population of students to be tested changed, cutoff scores for placement were revised, and courses were restructured. These changes have made it extremely difficult to compare program successes from year to year. However, these changes were in the best interest of students and were more important than consistent evaluation measures.

Conclusion

Almost 20 years have passed since planning began for the Tennessee Board of Regents' Remedial and Developmental Studies Program. During that time, thousands of students who could not have completed postsecondary education without the interventions provided by the faculty and staff in the TBR's R/D Program have benefited from Tennessee's commitment to basic and developmental education. The program continues to be viable today with 12,956 students enrolled in at least one remedial or developmental course during the Fall 2000 semester (Hsu, L., TBR Research and Assessment, personal communication, March 29, 2001). TBR's R/D Program began with the concept that all students deserved a second chance. For many of these students, participation in remedial and developmental courses was not just a second chance; it would be their last chance to change their lives and the lives of their families. These changed lives are the true measures of the success of TBR's R/D program.

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The Conference on Basic Writing: 1980-2001

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The Conference on Basic Writing (CBW) is a Special Interest Group (SIG) of the Conference on College Composition and Communication (CCCC). CBW is a broad-based organization of teachers and researchers from varied public and private institutions, through which basic writing professionals engage in conversation about the theory and practice of teaching beginning college writing. Founded in 1980, CBW provides a network for basic writing professionals through annual conventions, yearly SIG meetings, an e-mail discussion list, a website, a peer-reviewed electronic journal, and related publications. One CBW-sponsored book is now in press, and a second book encouraged by CBW has been published. CBW can serve as one example of how developmental educators created a thriving organization that supports a rich professional practice.

The Conference on Basic Writing (CBW) is a Special Interest Group (SIG) of the Conference on College Composition and Communication (CCCC). CBW is an inclusive organization composed of a spectrum of developmental education faculty who teach developmental writing, or as it is known in the field of rhetoric and composition, basic writing. Members range from those just entering the field to experienced, tenured professors who may serve as writing administrators on their campuses. CBW members teach at diverse institutions: community colleges, research universities, private rural colleges, and urban state universities from all regions of the country.

Perhaps the key motive for developing a professional basic writing organization over the years has been a genuine concern basic writing instructors feel for their students. Developmental education students are especially vulnerable within higher education. They are often the first to be excluded or considered for exclusion when budget cuts or demands for "excellence" are issued. (See, for instance, Rose, 1989, pp. 5-8, for a history of remediation and exclusionary practices beginning as early as 1841 and including remediation at Harvard, and McNenny, 2001, pp. 1-6, for a recent account of state actions that exclude students.) Sometimes developmental students are viewed as costing tax payers for a "second chance" at education; some believe precious dollars should be spent on those who are already doing well.

Developmental students are also vulnerable because they are diverse in many ways: many are first-generation college students; some are people of color or speakers of more than one language or dialect; some are refugees or immigrants; some are reentry students such as displaced homemakers, older learners who are retraining, and ex-military students; some experienced erratic or interrupted high school educations or dropped out of high school and later earned General Equivalency Diplomas (GEDs); some have learning or other disabilities; some are very young parents; and many are working, usually long hours. These students who are clearly not privileged may be least able to defend themselves against budget cuts and other efforts to exclude them. Ironically, this profile of diversity has now become more and more the norm for the freshman class in America's colleges.

Perhaps because the students are sometimes viewed as marginal within the university or from the borderlands of academia, the faculty appointed to teach these students are too often underpaid and overworked; sometimes instructors may be serving as adjunct faculty at several institutions simultaneously, paid by the course without benefits. Although some basic writing professionals hold tenure track positions, such appointments are not the norm. To this faculty is then given the complex job of teaching writing to developmental students who so desperately need to write well to survive in college and to attain their goals. Not only is the teaching of writing a labor-intensive

job because each student, diverse in so many ways, needs individual help and response, but also the teaching of writing is a counter-intuitive process. That is, starting with the smallest unit, the word, and moving up to the sentence, the paragraph, and the essay might seem a sensible, straightforward approach. Yet research and experience reveal that writing is learned top down, beginning with the full text and moving down to the paragraph, the sentence, punctuation, and words. Thus, it makes no sense to put developmental writers in skill and drill workbooks, which might initially appear as an easy and efficient approach to overburdened instructors.

In light of all this—the diverse, vulnerable students, the often overtaxed and undervalued faculty, and the critical importance of college literacy—CBW came into existence and developed over the years. CBW provides a community for basic writing teachers, helping to overcome the sense of isolation developmental educators sometimes experience, and CBW supports a professional practice through varied forms of communication. CBW connects basic writing instructors through forums for professional dialogue that allow for a range of interaction, from informal conversation to formal, professional dialogue and debate. The advent of the electronic age has been critical to the success of CBW. CBW can serve as one example of how developmental educators created a thriving organization that supports a rich professional practice.

Early History and Original Goals

CBW has been in existence for 21 years as of 2001. At the annual CCCC meeting in Washington, D.C., March 1980, Charles Guilford, founder and first chair of CBW,

> posted a sign-up sheet on the message board of the Washington Hilton. Eventually, four sheets filled with names of people interested in starting a professional organization for teachers of basic writing. With Lynn Troyka's advice and support, the organization began to take shape as a special interest group of CCCC. (Guilford & Uehling, 1988, p. 4)

Originally, the group was called the Conference on Basic Writing Skills (CBWS). The first flyer published to advertise the new organization opened with these words:

> CBWS is a new professional organization for teachers, researchers, and administrators of basic writing. Our purpose is to respond to the needs of this rapidly growing professional field. For too long, teachers and scholars across the country have worked in relative isolation, with far too little opportunity for professional growth and recognition. CBWS will be working to provide those opportunities. (Guilford, 1981)

The brochure continued, offering suggestions for members to read (a subscription to the Journal of Basic Writing [JBW] was offered with membership in CBWS for the first few years); to respond to an annual survey of needs; to volunteer for committees; to grow through CBWS workshops and seminars; and to participate at the CCCC through the Special Interest Group (SIG) meeting (Guilford, 1981). Guilford recalled how the group took shape: "Mailing lists were typed, labels addressed," and "in a short time, the group grew to over 175 members from almost every state and Canada" (Guilford & Uehling, 1988, p. 4).

The editors of the first issue of The Conference on Basic Writing Skills Newsletter described the organization as

> a new professional organization for people who are interested in the fundamentals of writing and especially in teaching those fundamentals on the post-secondary level. Our primary objective is to make the nature and results of our work better known to each other and to the larger academic community of which we are a part. (Guilford, King, Thomas [Uehling], Hudson, Leahy, & Fox, 1982, p. 1)

CBW would provide a means for members

> to find out who [their] basic writing colleagues are and where they are working; to learn about other basic writing programs around the country; to share ideas and teaching strategies with other members; to keep abreast of conventions, seminars, and conferences; and to contribute to the body of scholarly knowledge now emerging on basic writing and literacy. (Guilford et al., 1982, p. 1)

Current Goals and Activities

The original objectives of CBW have been largely carried out. The 2001 official website of CBW states: "CBW's goal is to provide a site for professional and personal conversations on the pedagogy, curriculum, administration, and social issues affecting basic writing" (http://www.asu.edu/clas/english/composition/cbw/). Further, "The mission of the Conference on Basic Writing is to create a network of basic writing professionals" (http://www.asu.edu/clas/english/composition/cbw/membership.html). CBW fosters this network through these means:

1. CBW sponsors an annual SIG meeting at the Conference on College Composition and Communication. This is an informal evening gathering that provides a venue for discussing organizational issues and for socializing with others interested in basic writing. Everyone is welcome to attend; no registration is required.

2. CBW publishes its own electronic journal.

3. CBW holds the annual Basic Writing Convention, which is a pre-convention workshop at every CCCC. Information about the workshop is sent to every CBW member through the Basic Writing (BW) Listserv.

4. CBW promotes publications related to basic writing (http://www.asu.edu/clas/english/composition/cbw/membership.html).

Brief Chronology

The leadership of CBW includes a group of individuals from diverse institutions, including state universities, urban state universities, research universities, and community colleges. This diversity also represents the range of institutions in which CBW members work. During the period from 1980-1987, CBWS was founded and chaired by Charles Guilford. Karen Uehling served as Chair from 1983 to 1986, and the year 1987 served as a transition period for the organization.

In 1988, CBWS was reborn as the Conference on Basic Writing (CBW), under the guidance of Peter Dow Adams, Chair, and Carolyn Kirkpatrick, Associate Chair. By the spring of 1989 membership had grown to 325 members, and by-laws had been proposed (Adams & Kirkpatrick, 1989). In Fall 1991 Kirkpatrick stepped down to serve as Co-Chair of the 1992 national basic writing conference, and Suellynn Duffey became Associate Chair for the remainder of Kirkpatrick's term. The following years included shared leadership with rotating Chairs and Associate Chairs, including Suellyn Duffey, Jeanne Gunner, Gerri McNenny, and Sallyanne Fitzgerald. Linda Adler-Kassner and Greg Glau served as the most recent Co-Chairs beginning in 1999. This leadership history reflects the collaborative nature of CBW members and has contributed to a strong membership.

Print Communication

Developing and maintaining communication among diverse basic writing practitioners has been critical to the success of CBW and the growth of a professional practice. Before the advent of the electronic age, most communication was necessarily through print. A number of publications developed over the years, including a newsletter, an edited collection encouraged by CBW, and a forthcoming bibliography sponsored by CBW. In addition, CBW has maintained a close and cordial relationship with the scholarly journal in the field, the Journal of Basic Writing.

Newsletter

The first attempt to establish a professional dialogue and develop a basic writing community was through a newsletter. In 1982 The Conference on Basic Writing Skills Newsletter was initiated. The inaugural issue, Winter 1982, listed an editorial staff of Charles Guilford, Karen Thomas (Uehling), Rick Leahy, Jay King, Susan Hudson, and Roy Fox. In those early days, the newsletter was created on an electric typewriter using press-on lettering for formatting; then the newsletter was photocopied and mailed. That first issue contained part one of an interview that Karen Uehling conducted with Sondra Perl, recipient of the National Council of Teachers of English Promising Researcher Award in 1979 for her study of basic writers.

From 1988 to 1992 Chairs Peter Adams and Carolyn Kirkpatrick edited the Conference on Basic Writing Newsletter and put out nine issues. The news-

letter had a new look—it was typeset and printed. As Bill (William) Jones (1992), CBW Executive Committee Member, described Adam's impact on the newsletter and the organization, "It was Peter's eye. . ., and his efforts that had revived and sustained the organization" (p. 9). During this time the CBW Newsletter expanded and was regularly published. Editors and contributors for more recent issues include Suellyn Duffey, Jeanne Gunner, Kay Puttock, Gerri McNenny, and Sallyanne Fitzgerald.

Responsive to the interests of CBW's membership, articles, book reviews, and columns also became permanent features. Notable articles included Greenberg's (1990) piece on assessment, Smith's (1992) article on teaching in South Dakota, and Schuster's (1998) article on fee assessment. Book reviews were popular, such as Facts, Artifacts and Counterfacts (Bartholomae & Petrosky, 1986), reviewed by Peter Adams (1988); A Sourcebook for Basic Writing Teachers (Enos, 1987), reviewed by Gene Hammond (1989); Lives on the Boundary (Rose, 1989), reviewed by Kay Puttock, (1989); and Research in Basic Writing: A Bibliographic Sourcebook (Moran & Jacobi, 1990), reviewed by Jeanne Gunner (1990). In addition, Linda Stine and Sally Harrold, wrote a regular column called "Reviews: Recent Articles on Basic Writing" (e.g., Stine, 1988).

The Newsletter continued production through 1998 in various forms, and in all, 22 issues were published. Over time, the Newsletter expanded its focus to include a wide variety of items related to conferences, research, and professional development activities. The CBW/CBWS Newsletter is archived on the CBW website (http://www.asu.edu/clas/english/composition/cbw/Newsletter_Archive.html).

Books

In addition to the informal written communication of the newsletter, CBW has supported formal professional writing and publication. CBW member Gerri McNenny, who later served as Chair of the organization, proposed in 1996 to the CBW Executive Board to edit a collection on basic writing and mainstreaming; the collection emerged from the vigorous debates in the mid- and late-1990s about whether basic writing students should have a separate course or whether they should be mainstreamed, perhaps with extra support or extra time to complete the course. As Jeanne Gunner (1997) noted, "Much of the recent resurgence in CBW activities, including the volume being prepared, . . . can be attributed to the foundational shift in the field represented by the mainstreaming movement" (p. 4). CBW supported the project through a flyer soliciting manuscripts for the volume, and McNenny, with the assistance of Sallyanne Fitzgerald, brought the project to fruition with a collection titled Mainstreaming Basic Writers: Politics and Pedagogies of Access (McNenny, 2001). Marilyn S. Sternglass (2001) commented on the book's timeliness:

> This is the right time for this book. [It] presents the issues that policymakers must confront. . . . The strength of this book lies in its openness and willingness to present a wide range of perspectives from knowledgeable professionals . . . grappling with the question of how to best provide opportunities for those students who are increasingly being discriminated against by forces within the larger society who neither understand nor sympathize with the difficult personal and educational backgrounds that have made these students so vulnerable at this time. . . . Our students deserve this attention. (p. x)

Because of its contents framing the mainstreaming debates and offering possible frameworks, Mainstreaming Basic Writers addresses a wide range of college and university faculty and administrators who face the responsibility of making decisions about the curriculum for basic writing students, decisions where much is at stake.

CBW recently moved more directly into book sponsorship with its forthcoming bibliography: The Bedford Bibliography for Teachers of Basic Writing (Adler-Kassner & Glau, in press). The bibliography contains abstracts of books, articles, and periodicals, and proceeds will be used to found a scholarship for travel to CCCC and participation in the annual CBW sponsored pre-CCCC workshop.

CBW has also encouraged members to read and contribute to the scholarly Journal of Basic Writing, which provides another formal means of specialized communication and support for a professional practice.

CBW has had a productive relationship with JBW since the organization began. A subscription to JBW was offered with membership in CBWS for the first few years (Guilford & Uehling, 1988, p. 4), and the Newsletter included its early calls for submissions. JBW also established the Shaughnessy Writing award for best article, which is awarded every two years (Fitzgerald, 1991, p. 1). The award is named in honor of Mina Shaughnessy, author of the ground-breaking book Errors and Expectations (1977) and a member of the first editorial board of JBW. Special issues of JBW were later published to highlight important conference themes, including keynote and plenary addresses (spring 1993), and featured workshops such as "Race, Class, and Culture in the Basic Writing Classroom" (spring 1997). There is also a link from the CBW website to JBW, including contents and abstracts of recent issues, subscription information, and submission guidelines.

Digital Communication

The advent of electronic media has been critical to the success of CBW and the organization's ability to foster professional communication and build a community and a professional practice. Rather than waiting for sometimes sporadically published newsletters, CBW members now can simply turn on their computers to enter into a thriving informal discussion or contribute to a formal professional dialogue. The online community has all but eliminated the sense of isolation basic writing practitioners may have experienced in the early days of basic writing teaching. Electronic forums include an online CBW discussion list, the CBW website, and an electronic journal, BWe: Basic Writing e-Journal.

Discussion List

Described as "an ongoing discussion of the theory and practice of basic writing" on the CBW web site (http://www.asu.edu/clas/english/composition/cbw/listserv.html), the CBW online discussion list, known as CBW-L, offers subscribers an informal means of professional conversation that is fast, frequent, and far ranging. In 1995, Terence Collins founded and still administrates the listserv at the University of Minnesota. To become a member of the Conference on Basic Writing, a free organization, one simply subscribes to the Basic Writing Listserv. (Initially CBW charged minimal membership dues to offset the cost of publishing and mailing the newsletter.) There are often lively discussions on the listserv on a range of topics. Members also use the listserv for gathering information and planning CCCC presentations. Surveys, which have been part of the CBW Newsletter, are now carried out quickly and informally on the listserv, often for information gathering or advice seeking.

Web Site

If the discussion list allows for quick, informal conversation, the CBW web site promotes professional practice by offering a range of information. Originally designed and constructed in 1995 by Anne Parks and Terence Collins at the University of Minnesota, in 1999 the web site was moved to Arizona State University, where Greg Glau took over its management. The opening web page states: "The intent of this web page is to build on the CBW mission by providing resources to further the study of basic writing in various contexts" (http://www.asu.edu/clas/english/composition/cbw/). It contains links to information on CBW membership, the CBW listserv, online resources, basic writing programs, a reading list, the Journal of Basic Writing, the Basic Writing e-Journal, and the CBW archive.

Electronic Journal

While the CBW listserv and web site allow for frequent, casual conversation and access to information, the BWe: Basic Writing e-Journal (http://www.asu.edu/clas/english/composition/cbw/journal_1.htm), a recent electronic publication of CBW, provides a venue for more formal electronic communication that is designed to expand conversations about basic writing. BWe commenced publication in summer 1999, and as of October 2001 five issues have been released. This free, downloadable peer-reviewed journal provides an additional publication opportunity for basic writing professionals by printing substantive articles, reviews, accounts of many of the CBW annual workshop presentations, and an editor's page. Editors Linda Adler-Kassner and Greg Glau, along with board members of the Bwe, note its strong sense of community and professionalism. Past issues of BWe and the Newsletter are also indexed through CompPile: http://comppile.tamucc.edu/.

Face-to-Face Communication

In addition to print and electronic forms of publication, CBW has built a professional community by providing forums for face-to-face communication in a variety of venues, including annual meetings and occasional related panel presentations, national conferences, and yearly workshops.

Annual Special Interest Group (SIG) Meetings and Related Panel Presentations

Because CBW originated as a Special Interest Group (SIG) of the Conference on College Composition and Communication (CCCC), which is part of the National Council of Teachers of English (NCTE), the longest running format for in-person meetings has been the annual SIG meetings held at the yearly CCCC conventions. The first CBWS SIG meeting was held at the CCCC in Dallas, March 1981. SIG meetings have continued unabated over the years. Until about the mid-1990s each SIG had a thematic focus and guest presenters. The 1982 SIG in San Francisco was the first with a specific thematic focus: Charles Guilford put together a program on graduate programs in basic writing. From 1983 to 1986 CBWS appointed special program chairs who invited or made calls for presenters. After that, the CBW Chairs organized the SIG programs. A particularly memorable SIG was the St. Louis 1988 reorganizational CBW meeting, described by Suellynn Duffey (1988):

> We had come from all over North America and from different types of schools: a community college in New Orleans, a Big Ten public University, Chicago and St. Louis, Nevada and Kentucky. . . . Nicholas Coles, Marilyn DeMario, and Mariolina Salvatori, contributing authors to David Bartholomae and Anthony Petrosky's Facts, Artifacts and Counterfacts, and all teachers of the basic reading and writing course described in the book, were behind the table at the front of the room. . . . The time was right for renewing the Conference on Basic Writing. (p. 4)

The spring 1989 SIG in Seattle featured presentations by the contributing editors of A Sourcebook for Basic Writing Teachers: Theresa Enos, David Bartholomae, Andrea Lunsford, and Lynn Troyka. Occasionally CBW has sponsored standard panels at the CCCC, to allow for more formal discussion of basic writing issues. For example, at the Chicago CCCC in 1990, CBW sponsored a panel titled "Black Students, Standard English, and Basic Writing," attracting as many as 184 people (Adams & Kirkpatrick, 1990, p. 2), immediately followed by the informal SIG time for discussion. Panelists included Miriam Chaplin, Eugene Hammond, Lisa Delpit, and Geneva Smitherman, respondent. Bob Roth (1990) stated that about 70 or 80 people stayed for the discussion which was "both intense and cordial." Roth continued, "We achieved both more and less than we'd hoped—more controversy and less focus, more diversity and less conclusiveness" (p. 3).

Other SIG meetings have focused on topics such as critical thinking; race, class, and gender; and what a basic writing course should cover. Some meetings have been free ranging discussions. Jeanne Gunner (1996) described the valuable conversations that often took place at SIG meetings:

> At CBW SIG meetings, our shared concerns form the center of discussion. And I think this claim holds true even when our meetings have dealt with the powerful tensions of our field—with race and basic writing, with curricular change and basic writing legacies. . . . CBW does a great job of enabling such exchanges to take place. Talking to BW [basic writing] colleagues—a form of information exchange equally or more useful than journal articles—I learned about other institutions, about professional conditions, about political critiques. CBW has one of the richest membership bases of any discussion group I know and offers one of the best educations about a field and a discipline as a result. (p. 2)

The 1995 SIG in Washington, D.C., was a defining moment for CBW. As Jeanne Gunner (1996) noted, "the politics of mainstreaming proved a uniting topic, even as different points of view made for intense exchanges" (p. 2). The importance of continuing these conversations and of keeping in touch generally led to some new initiatives, including the creation of the CBW listserv and web site in 1995 and the decision to propose a pre-CCCC all-day workshop in lieu of a national conference. The all-day workshops commenced in 1996, so SIG meetings then evolved

into informal follow-up discussions of the workshops and suggestions for new workshop topics. Greg Glau observed, "I've been especially pleased at the Special Interest Group meetings over the past couple of years—more and more people (we were overflowing in the room in Atlanta [1999 meeting]), with lots of good ideas and suggestions and comments" (personal communication, April 16, 2001).

National Basic Writing Conferences

While the SIG meetings offer a forum for informal conversation, national basic writing conferences have provided for formal presentations, debate, and dialogue. Four national basic writing conferences have been held, the last two co-sponsored by CBW, and eventually the conferences grew into the annual workshops. An announcement about the first conference appeared in the Spring 1985 issue of the CBWS Newsletter. This event, which was held in September 1985 at the University of Missouri-St. Louis, was described as "A one-day Basic Writing Conference, co-sponsored by NCTE." Later, Sallyanne Fitzgerald (1989), who organized and chaired the first three conferences, recalled that first conference and how it evolved:

> The Basic Writing Conference grew out of my own frustration in the early 80s with professional conferences like NCTE, CCCC, and NADE (National Association of Developmental Educators), where only a few sessions could be devoted to basic writing. With a grant from the Monsanto Fund and co-sponsorship from NCTE, a local committee from several St. Louis colleges and I hosted the first conference in September 1985. Andrea Lunsford, our first keynote speaker, inspired us with her insights into designing writing assignments. (p. 1)

In 1987 at a second conference held in St. Louis, the keynote speaker was Lynn Troyka, who "discussed her experiences with basic writers and raised the issue of what a basic writer is" (Fitzgerald, 1989, p. 2). The third national conference in 1989 was co-sponsored by CBW. According to Sally Barr Reagan (1989), this conference was "the largest thus far with 232 participants from twenty-four states" (p. 7). Keynote speaker Glynda Hull, project director at the Center for the Study of Writing and Visiting Assistant Professor, University of California, Berkeley, "discussed the necessity of recognizing the social as well as the cognitive needs of basic writers" (Reagan, p. 7).

CBW organized the Fourth National Basic Writing Conference, held in College Park, Maryland, in 1992, which grew from one to three days. Eugene Hammond and Carolyn Kirkpatrick co-chaired the conference, and it was co-sponsored by NCTE and the University of Maryland. Titled "Critical Issues in Basic Writing: 1992," the conference challenged participants to define the critical issues of the 90s. Two important issues emerged: (a) Should basic writing be a separate course or should students be mainstreamed into freshman composition? And (b) How do we keep from marginalizing basic writing students? Speakers also dealt with issues related to defining and assessing literacy, the politics of error and the place of grammar, basic writing connections with English as a Second Language (ESL), the design of basic writing programs, and adaptations of the Facts, Artifacts and Counterfacts approach of Bartholomae and Petrosky (Uehling, 1993).

It was at this conference that keynote speaker David Bartholomae (1993) delivered his famous "Tidy House" address in which he argued that basic writing marks students entering the curriculum and that they should instead be mainstreamed. Bartholomae's title emerged from the notion that the basic writing enterprise might be a "tidy house" that ignores the realities of students' lives and concerns and that perpetuates itself as an academic unit. This speech and the following plenary sessions were published in a JBW "special issue" in the spring of 1993, and in the fall of 1993, as they marked a key point in the field's history and definition. These included "Basic Writing Reconsidered" (Adams, 1993); "Standards and Access" (Fox, 1993); "Literacies and Deficits Revisited" (Scott, 1993); "The Status of Basic Writing Teachers: Do We Need a 'Maryland Resolution'?" (Gunner, 1993); "The Politics of Basic Writing" (Greenberg, 1993); "Basic Writing: Pushing Against Racism" (Jones, 1993); and "Funding and Support of Basic Writing Programs: Why Is There So Little?" (Berger, 1993). A particularly interesting panel focused on Mina Shaughnessy; called "Rereading Shaughnessy," presentations included "Reading Errors and Expectations from the Borderlands" (Lu, 1992); "The Vanishing Site of Mina

Shaughnessy's Errors and Expectations" (Laurence, 1993); and "Rereading Shaughnessy from a Postcolonial Perspective" (Gay, 1993).

CBW had hoped to continue sponsoring a national conference every other year; however, the time and effort in planning a conference and the cost of travel for participants led to the formation of the alternate idea of a pre-CCCC all-day workshop.

CBW All-Day Workshops

If the national conferences offered opportunities for formal professional communication, the workshops create "a space for the personal in the professional discussion," as Jeanne Gunner characterized the second workshop (Gunner & McNenny, 1997, p. 6). The CBW workshops build a professional community through hands-on sharing of teaching ideas and practical applications of scholarship. The first workshop was held at the 1996 Milwaukee CCCC and was called "Exploring the Boundaries of Basic Writing." Although this first workshop was proposed by CBW representatives, the Chair of CCCC asked CBW to combine forces with two other individuals who had submitted a basic writing workshop proposal. Subsequent workshops have been completely CBW-sponsored. Workshops run from nine to five and meet the Wednesday before the CCCC formally begins.

The 1997 CBW workshop held in Phoenix was titled "Race, Class, and Culture in the Basic Writing Classroom." The presentations from this workshop, as well as pieces by the Co-Chairs of the workshop, were published in a special issue of JBW: "Retrospection as Prologue" (Gunner & McNenny, 1997); "Class Talk" (Tate, McMillan, & Woodworth, 1997); "Constructing Teacher Identity in the Basic Writing Classroom" (Royster & Taylor, 1997); "Writing the Life of Mina Shaughnessy" (Maher, 1997); "From Remediation to Enrichment: Evaluating a Mainstreaming Project" (Soliday & Gleason, 1997); "Theory in the Basic Writing Classroom? A Practice" (Villanueva, 1997); and "Our Apartheid: Writing Instruction and Inequality" (Shor, 1997). The 1998 Chicago workshop was called "Rethinking Basic Writing: Ideas Whose Time Has Come." Terence Collins' (1998) presentation was summarized in the CBW Newsletter, and the next year CBW began publishing accounts of many of the workshops in the Basic Writing e-Journal.

At the 1999 Atlanta workshop, "Teaching Basic Writing at the Point of Need," workshops were simplified to four presentations and a final wrap-up, a format that seemed to work well. The 2000 Minneapolis workshop was titled "Basic Writing in a Post-Remedial World: Putting Students at the Center." The 2001 workshop in Denver was named "Answering the Call: Innovative Approaches to Basic Writing in Classroom and Community." Linda Adler-Kassner identified the workshops as one of the high points of CBW: "They've all been fantastic. . . . Seeing new and returning people in the workshop is also exciting — the sense of community among participants is really fulfilling" (personal communication, April 10, 2001).

Informal Collegiality

One important aspect of the CBW community is the emphasis that is placed on informal collegiality. The evolution and existence of the newsletters, conferences, and online communications has greatly contributed to this—and the tradition continues, especially at conferences with a primary focus on the SIG meeting as a place to gather.

A Professional Community and a Professional Practice

Over the years, it is the people and their concern for students and each other who have made CBW into a professional community. The diversity and inclusiveness of this community have contributed to its success. Jeanne Gunner (1996) described the variety of people within CBW and the organization's democratic nature:

> They may be interested because they have taught BW classes for years and have made BW the center of their professional lives, or because they are about to begin to teach them and are seeking information and support from experienced BW teachers. They may be famous researchers we all read and whose ideas inform our classes, or graduate students who will be the next generation of famous names. They may be BW instructors with ideas . . . to share on pedagogic and curricular innovations, or those who defend traditional approaches. They may teach graduate students or freshmen, at

> community colleges or research institutions. What they have in common are professional and personal concerns related to the field of basic writing. . . .
>
> My experience with the group tells me that CBW. . . does inclusion very well. In its democratic structure and attitudes I find the group refreshing; there is no professional competition, no cult of personality, no bias toward or against a particular orientation within teaching or research. . . . Clearly, we're a grass-roots kinds of organization. (pp. 1-2)

The CBW community has developed as members worked together on projects and formed friendships in the process. In an appeal for volunteer members for the Executive Committee in 1992, Chairs Adams and Kirkpatrick wrote: "Keep in mind that most CBW members (including the officers) don't know each other except through this organization; it's here that we are meeting new friends in the profession" (1991, p. 2). Recent CBW projects have received much support. Greg Glau pointed out "how satisfying it is to have so many people offer their help, for all aspects of the various projects we've been involved with" (personal communication, April 16, 2001).

The CBW community supports a professional practice. It is through CBW that teachers and researchers bring together practice and theory in interesting and challenging ways. Linda Adler-Kassner described the importance of cultivating a professional practice in the current basic writing climate:

> In the broader profession, the time Greg [Glau] and I have spent as chairs has been marked by continuing attacks on basic writing and basic writers from some state legislatures and institutions; at the same time, within the profession (as illustrated by scholarship, in any event) there's been a move away from the more theoretical/abstract scholarship of the late 80s/90s toward a revised version of work that's focused on students and actual student work. I sense that members of the profession are starting to become more proactive/less reactive to the "outside" incursions on/reaction to the issues in the profession; starting to take the bull by the horns and run with it. This is illustrated in work like Attending to the Margins [Kells & Balester, (Ed.) (1999)], I think. (personal communication, April 10, 2001)

Each chair has had a hand in shaping the CBW community and its practice. Peter Adams was especially critical to the development of CBW. When Adams stepped down, Bill (William) Jones (1992) voiced a sentiment many held: "It was Peter's . . . efforts that had revived and sustained the organization" (p. 9). In Adams' (1992) final column as Chair, he articulated how important the work of CBW is:

> I start with the belief that the teaching of basic writing is important—as important as anything being done in higher education. Often we are the last chance at college-level education for students who have plenty of ability but who have not been served well previously or who have not taken advantage of the opportunities offered. . . . Further, we are one of the few areas in the academy where differences between students are reduced rather than exaggerated. . . .
>
> Because the teaching of basic writing is so important, the work of this organization is similarly important. . . . CBW's most important role is to insure CCCC continues to provide a place where teachers of basic writing feel that their needs are being addressed and to insure that the considerable intelligence of the combined membership of CCCC continues to address the thorny problems involved in teaching basic writers. . . .
>
> Because the work we do is important, I want to invite—no, to urge—each of you to consider more active participation in CBW. (pp. 2-3)

CBW began and continues because basic writing instructors take seriously their responsibility of providing students with quality teaching. Diverse in many ways and especially vulnerable to exclusion from higher education, basic writing students desperately need informed teaching to develop writing abilities necessary for success in college. CBW members engage in conversation together about the theory and practice of basic writing through the network CBW provides. Through informal conversation, information sharing, formal presentation, debate, and scholarship shared

in print and electronic mediums, the organization has developed into a thriving community of diverse educators who work together to create a rich professional practice. Thus, CBW exemplifies the process one group of developmental educators took to develop into a strong professional body.

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Professional Status for Writing Center Directors

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Writing centers comprise one part of developmental education, and for years most directors of college writing centers lacked professional status. The issue surfaced at the 1979 Conference on College Composition and Communication (CCCC) as members debated whether full-time composition teachers and basic writing teachers should be regarded as regular faculty with equal rights and access to tenure. This writer offered an amendment to give writing center directors equity also but withdrew the amendment after sharp criticism. For two years she built support for a reworked resolution, which the CCCC passed unanimously in 1981, one step toward improved professional status.

Writing center directors on college campuses began an effort in the late 1970s to achieve professional status. It was needed, for many were overworked, underpaid, and undervalued. Few faculty in academic communities understood what writing center directors did and hoped to accomplish. There were other problems, involving such things as physical facilities, budget insecurities, assembling materials, gathering support staff, and all this with few funds for travel and other perks. Most writing center directors at that time did not have access to tenure (Writing Center Association Executive Board, 1985), and many still do not. This article describes an early struggle to improve their professional status.

To better understand, let us review how writing center directors became a part of the larger movement of academic assistance in higher education, now called developmental education. The need for learning assistance in higher education was not new. As early as 1825 Philip Lindsley, president of the University of Nashville, complained that "In one of our most respected colleges, not one youth in ten is thoroughly prepared" (Hofstadter and Smith, 1961, p. 331). Lindsley was not alone in his concern, for by the close of the nineteenth century, a number of colleges had established academies where students prepared themselves for college work, but the underprepared did not disappear. Martha Maxwell (1979) tells us that in 1907 half the students who matriculated for college-level work at Harvard, Yale, Princeton, and Columbia failed to meet entrance requirements (p. 6).

During the early 1930s remedial reading clinics appeared at colleges in another attempt to deal with the underprepared students. A decade later World War II veterans who were college students on the G.I. Bill often needed help, and they received tutoring and other kinds of academic assistance at guidance centers (Steele, 1982, p. 24).

In 1947 a distinct philosophic shift in higher education took place, which opened the door to new kinds of students and institutions. Army tests indicated that 49% of the population had the mental ability to complete 14 years of schooling in general and vocational studies, and 32% had the capacity for a normal four-year college course. On this basis President Harry Truman recommended that higher education be opened to this wider segment of the population, particularly to historically underrepresented groups. Despite cries from elitists, community colleges sprang up everywhere, leaving traditional two- and four-year institutions bewildered not only by the sheer numbers of their new students but by the complexities of their learning needs as well. (Steele, 1982, p. 25). In the wake of these problems and others, such as retention, many colleges established learning centers, writing centers, and other related programs and recruited staff members and directors for them. Often writing center directors advanced to their current responsibilities from entry-level positions in campus English departments.

Students who needed academic assistance on campuses were often enrolled by the colleges into

segregated departments or programs, which were termed remedial. Pedelty (2001) and others noticed that most underprepared students felt stigmatized from thus being treated differently from other students, a threat to their self worth. Stigma also touched those who worked with them, as if teachers of students in a lower academic continuum are remedial by association (Beckett, 1995; Crawford, 1993; Spann, 2000). Some stigma still exists. Nevertheless, despite these limiting campus environments, many successes came about over the years (Casazza & Silverman, 1996), thanks to gifted and diligent writing center directors, dealing with students and their individual needs (Moore, 1996), keeping careful records, expanding their education and training, and often learning on the job, as described in many issues of The Writing Lab Newsletter, founded in 1976 at Purdue University.

This writer became involved in the need for improved status for writing center directors in 1979 when the issue surfaced at the annual business meeting of the Conference on College Composition and Communication (CCCC) in Minneapolis. The CCCC members were considering a proposal on behalf of instructors of composition or basic writing courses that "full-time instructors of composition and/or basic writing courses shall be regarded in every instance as regular faculty members and shall be accorded the same rights as all other faculty persons including equality of salary and accessibility to tenure status" (CCCC, 1979). The CCCC proposal sounded logical and needed to me, but I felt that it did not go far enough. At the time I was a director of a college skills center, which included a writing component, and I knew that both writing center or writing lab directors and composition teachers need career support and protection.

Consequently, during the discussion of the resolution, I offered what I thought was a friendly amendment that "and/or writing lab directors" be inserted after the word "courses." To my surprise several CCCC members immediately challenged my proposed amendment, principally because they believed that college writing labs are sometimes staffed by paraprofessionals, and thus, in their minds, the amendment would open up unresolvable problems relating to such issues as salary and accessibility to tenure status. I withdrew the amendment for the time being and said that I would see if a more acceptable proposal could be worked out in a CCCC business session another year.

After the meeting I looked up a number of critics of my proposal to hear their views. One was a person to whom I had supplied some microfilm materials for his dissertation eight years earlier. He and several others at the gathering suggested possible wordings for a new resolution. Now I needed to gather broader support.

During the next two years I publicized various wordings for a prospective resolution in three articles of the Writing Lab Newsletter (Steele, 1979; 1980; 1981a) and invited readers to give their opinions. There was a brief notice in the Journal of Developmental and Remedial Education (Garland, 1981). I also spoke of the issue at the special interest session for writing lab directors in Dallas, Texas, in March 1981, early in the week when the CCCC was scheduled to debate this proposal at their business meeting.

During the previous two years I had received a number of letters with comments and suggestions from colleagues on other campuses, and I went over their letters carefully in drafting the proposed resolution. Apparently I had struck a nerve among writing lab directors across the country, and I have included some representative comments below, though I have omitted the writers' names because at least one person feared career repercussions if her colleagues became aware that she had contacted me about the status issue. Her reticence is another indicator of the tenuous positions in which many of them existed. One letter asserted, "Writing labs should be an integral part of academic service . . . and writing lab directors, because they provide instructional services, should be professionals and awarded the same rights and privileges of others in this profession." Another person wrote, "should you decide to offer your resolution, be assured that you will have my support." Similarly, a letter stated, "I applaud the spirit of your proposed resolution on the professional status of writing lab directors." And one supporter commented, "writing lab directors should have the same sort of career protection that full-time instructors have." These and similar comments reassured me that other writing center directors shared my concerns.

At the 1981 business session of the CCCC conference in Dallas, Texas, I introduced the proposed resolution with the following statement:

> My name is Mildred Steele of Central College in Iowa, and I speak in favor of this motion. Writing lab staff share with composition teachers a concern for the writing abilities of college students. They recognize that composition teachers, as well as faculty members in a number of disciplines, give attention to student writing needs, but many students require additional help and more sustained help than a teacher's time permits. And so writing labs or centers came into being to give students one-to-one help directed to their individual needs. They adapt to differing abilities, student attitudes toward writing, learning styles, problems and difficulties, and faculty expectations.
>
> The growth of writing labs in the past 10 or 15 years has been exceptional. We don't even know how many writing labs exist, but one indication is that there are some 900 subscribers to the Writing Lab Newsletter currently, and the Writing Center Journal, after only one issue, has 500 subscribers, with new subscriptions coming in at the rate of 25 per week.
>
> The professional staff in the writing lab or center carry a number of responsibilities. They make preparations for the day-to-day work of the lab: diagnosing, planning instruction, monitoring progress, adapting to student needs, keeping records, maintaining contacts with faculty, handling fiscal concerns, often training tutors and supervising their work, holding staff meetings, and often teaching some college courses. To grow professionally they need opportunities for scholarly reading, thought, and research. They need opportunities to work for advanced degrees. They should be able to travel to conferences to learn and to make presentations and to become informed of new approaches in language, rhetoric, and the teaching of writing in order to work compatibly with English faculty and others. Lab professionals need to serve on departmental and college committees as well.
>
> This resolution seeks to protect the positions and advance the professional growth of full-time writing lab staff with advanced degrees. These persons need the support and acceptance of their colleagues in this body, and, more importantly, their respect (Steele, 1981b, p. 4)

In the discussion of the proposal that followed, I voiced my observation that, many labs are admirably staffed by paraprofessionals, and this resolution was not intended to endanger their status or positions.

The resolution that follows was passed, this time unanimously, by the CCCC at their annual business meeting on, March 28, 1981:

> Whereas full-time professionals holding advanced degrees are widely employed by institutions of higher education to provide individualized instruction in writing labs;
>
> Whereas these writing lab professionals are not always accorded faculty status by their institutions and, hence, are subject to inequities in workload, in remuneration, and in career protection:
>
> Therefore, be it resolved that the 1981 CCCC affirm that full-time writing lab professionals holding advanced degrees, under contract to institutions of higher education, be accorded the same rights—equitable workloads, remuneration, and access to tenure—as other faculty members. (Steele, 1981b, p. 4)

I moved that copies of this resolution be sent to the International Reading Association (IRA), the Modern Language Association (MLA), and the Association of Departments of English (ADE), and the motion carried. The news of this CCCC resolution appeared in the Writing Lab Newsletter (Steele, 1981b, p. 4), and also in the Journal of Developmental and Remedial Education (Garland & Kayler, 1981, p. 25). Writing lab directors had good reason to be pleased with the affirmation, though most of us knew that this was only a beginning.

Four years later the Executive Board of the National Writing Centers Association (NWCA) took the matter further, passing a comprehensive four-page "Position

Statement on Professional Concerns of Writing Center Directors" (1985). Their statement began with a mandate that called for prepared permanent full-time, experienced writing center directors to have the same rights and responsibilities as other campus professionals. They followed their statement with many needed specifics that covered the mission of a writing center, its clientele, instructional goals, ethical and professional basis, relation to the total college administrative structure, and position in the academic community. Further sections highlighted budgeting, physical space, job descriptions, qualifications, and needed credentials, campus communications, expansion, tutors and staff, administrative support, records, travel, and evaluation. The position statement ended by reinforcing its call for professionalism and the need for forging ahead in the spirit of the early leaders of the writing center movement:

> The spirit of this statement is . . . professionalism. The writing center movement has gone beyond the 'can do' stage of scrounged materials and informal communications. However, we must not lose either the energy or the commitment that characterized our initial stages. (NWCA, 1985, p. 4)

During the years since these words were written, they still ring true for many directors of college writing centers, though calls for increased professionalism continue to be advocated regularly. There is still much to be accomplished.

What did we learn from this experience? First, we observed that frustrations alone cannot rectify professional inequities; instead, it takes careful and united action of many informed people working together to move toward valid solutions. Second, we discovered that campus developmental educators cannot live in isolation. They must enter the political arena and move beyond their own facilities and ways of thinking to develop ties of liking, respect, and mutual service across their campus and beyond. Third, we learned that change is threatening to some persons, but time and reasonable dialogues can work toward mutual understanding. Finally, we learned to value what goes on day-by-day in our writing centers. Without question, directors and staffs have strengthened the writing abilities of persons at many academic levels, and both teachers and students can take pride in the learning progress.

I hope that the early struggle of writing center directors helped to increase their professional status. Status, as we know, does not come about by simply passing a resolution or position statement. It is probably more likely to occur gradually, sometimes almost imperceptibly, in a continuum of excellence where writing center directors, other faculty, and administrators work with, depend on, and respect each other.

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Toward a Comprehensive Learning Center

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Over the past 20 years, learning centers have become an integral part of developmental programs. In fact, many say that this type of learning assistance is not only the way of the future for developmental education, but the only future. This is the story of the growth and eventual discontinuation of one center in a developmental studies program in a large urban university. The historical description provides commentary on both the Learning Center's evolution and local politics within the university.

"Insofar as program components are concerned, I believe that in the future learning assistance centers will become an increasingly important part of developing ... skills, particularly at universities" (Boylan quoted in Stratton, 1998, p. 29).

By the end of the 20th century, it became apparent that learning centers would become an integral part of developmental education programs, not only to support students in developmental programs, but also to support students across the entire campus. Many articles during the 1990s concerning the demise of developmental programs around the country called for a shift in emphasis from stand-alone courses to mainstreaming, studio courses, and tutoring centers (Boylan, 1999; Damashek, 1999a, 1999b; Grego & Thompson, 1996; Segal, 1995; Singer, 2000; Soliday, 1996; Stratton, 1998). Moreover, rising admission standards and a focus on retention efforts, particularly at research universities, marked a shift in focus for many developmental programs. It was a decade of "reinventing" ourselves (p. 186) as David Arendale defined it in an interview with Cheryl Stratton (1998).

The decade preceding the 1990s found developmental programs successfully creating ways, often through learning centers, to support students with their developmental coursework, ways that would bring them into the conversation of the university as a part of the community and help them with composition, reading, math, and study skills that they needed to be successful in the academic setting. What began in our department in 1984 as a small round table where math students could obtain tutorial help grew into a facility, by 1998, where students from all over the university could come for tutorial help in all core subject areas. When it ended, it ended with the largest comprehensive learning center on campus that served well over 1000 students each semester. The history of this center provides a backdrop for viewing the history of many developmental trends over the last 20 years.

Backdrop

In the mid-1970s, the Board of Regents of the University System of Georgia mandated that each of the 33 public colleges and universities in the state provide a program of courses for underprepared students in the areas of English, reading, math, and study skills. These programs were housed in freestanding divisions, financially independent, and not connected to any particular college or department within the institution. At Georgia State, a large urban university in downtown Atlanta, each of the areas of English, reading, math, and study skills was designated as a curricular unit within the division of Developmental Studies (DS), and each unit strived to develop curricula that provided students with the academic skills needed to function fully in the university.

Students in English, reading, and math were placed in lower or upper level courses within the Division based on their SAT scores, their high school grade point averages, and a predicted grade point average. They could exit the program through criteria designed by each unit and by passing the Board of Regents requirement on a basic skills test in each area. Some

students arrived with requirements to take all three academic courses, plus the study skills course. Others were required, because of their placement scores, to take one or two courses in the areas of "deficiency."

In spite of admission standards constantly rising, the DS population grew each year from 1980 through 1994. At one point during these years, Developmental Studies/Learning Support served over 1200 students, nearly half of the freshman class. Although professors were not involved in decisions about admissions standards or Regents' requirements, we managed to shift the curriculum to meet the needs of students through the years of change. One of the ways that we sought to meet their needs was through a Learning Lab that provided students with a place to go for extra help, practice with exit exams, and general encouragement toward academic success. After the mid-1990s, with changes in Regents' mandates to reduce the size of developmental programs in the research universities of this state, our department responded with creative ways to shift curriculum and learning center support toward retention efforts for all undergraduates, as well as training for graduate assistants in the College of Arts and Sciences.

In the fall of 1999, the Board of Regents in Georgia approved a motion from the Dean of the College of Arts and Sciences at Georgia State University to disband the Department of Academic Foundations. The "Department of Academic Foundations" was the fourth name for our department in less than 10 years. It had been known previously as the Department of Learning Support Programs, the Division of Learning Support Programs, and in the beginning, the Division of Developmental Studies. The action to disband the program, regardless of its label, ended not only a viable department that supported developmental studies students, staff, and faculty, but also abruptly thwarted the growth of an academic assistance learning lab that had evolved into a comprehensive center supporting undergraduate students across the university, graduate assistantships in the form of tutors and Supplementary Instruction leaders, several Supplemental Instruction programs from various departments, graduate training for the professorship, and research avenues for faculty. Since then, tenured faculty and many staff members have been relocated within the university. However, some of the students who were served in this learning center no longer have the academic support provided by the center. Others have found that they must rely on other methods of academic assistance scattered throughout the university. The Writing Center located in the English Department and the Math Lab, which is now housed in the space previously occupied by the Comprehensive Learning Center, must accommodate larger numbers of students and a larger range of needs. In addition, very few students who score below system minimums are admitted to the university today, as the Board of Regents declared in 1996 that by the year 2001 no more than one percent of the freshman class would be admitted provisionally to any state research university. So, some might say that in an effort to maintain and even raise system standards at research universities, universities may choose to discontinue remedial and learning support opportunities for large cohorts of students. However, a history of this learning center will indicate that perhaps it was not necessary to discontinue the student support system that the Learning Center provided.

This is the story of the evolution of a learning center and a demonstration of what can be developed in a large urban university setting. Although the ending of the story may be disheartening to some, the process of growth and the opportunities the center provided for students, faculty, and staff throughout the years is a history worth telling. The following account comes from conversations with a previous department chair, two of the early lab directors (Dr. Mary Deming, 1984-1986, and Dr. Nannette Commander, 1989-1991), from records that remain from the late Carol Callahan, the director who coordinated the lab from 1991-1997, and from my own personal experience as the last director (1997-1999). Many of the early records from the lab were lost, as previous directors discarded them when they acquired other positions or were moved to other departments in the university. This history has a cyclical nature about it, filled with irony, challenge, success, and change. What began as a lab for math tutoring has ended as a lab for math tutoring; as each challenge was met in a changing environment, the lab became a center of excellence in terms of teaching students, fostering research, and providing access to the academic community.

Getting Started

A previous department chair of Developmental Studies, Dr. Katharine Stone, recounts that in the early 1980s, the first "lab" consisted of a round table in a hallway, a couple of math instructors who served as

tutors, and math students from Developmental Studies courses who were invited to "drop in" for help as needed. At that time the math unit in the Division of Developmental Studies offered a three-course sequence to help students learn the skills and concepts necessary for success in college algebra and other undergraduate mathematics courses required by most majors. My own memory of this "lab" is that of a dimly lit room with one small table, a few students standing in the hallway waiting for assistance, and one of the math instructors going over problems and listening to students as they tried to understand the connections for math in their developmental math classes. This situation lasted only a year or so, when the Board of Regents mandated that all developmental programs provide tutoring for students in their classes. With this mandate came funds to fulfill this requirement.

In 1984, one of the English graduate assistants was hired to set up a learning lab for the Division. Her first year consisted of gathering materials and expanding the space previously used. The Division inherited an old storeroom, dark, but large enough for several tables. This was the first lab that would incorporate students from all three areas of study within DS and began the march toward a more technological focus that would gain attention over the next 15 years. Faculty members, along with the Lab Director, tutored students in English, reading, and math in the "cave," as we called the location at that time. The numbers of tutees began to increase rapidly. As the need for additional space and helping students with new technologies became more apparent, the lab was moved into a classroom in one of the oldest buildings on campus, a room highly visible, with a couple computer ports. Students more readily found their way to the lab. It was in this new space that the director added tutors who were not faculty members.

From 1984 through 1986 the lab thrived and grew. Its location shifted within the classroom building to accommodate more computers. In addition, the director began training peer tutors, expanding materials, adding computer programs, and publishing in a lab newsletter (Deming & Valeri-Gold, 1986). The lab began keeping records of numbers of students and appointment times. Student Support Services, the TRIO program at Georgia State, supported the lab by paying for some of the tutors to help students with special needs, such as readers for students with visual impairments, tutors trained in learning disabilities, and tutors from specific disciplines. In the three years that the lab was located in the classroom building, the numbers of tutors and students using the facility grew from a few faculty members and a few students per week to as many as 10 tutors and hundreds of students per quarter.

According to the director of this first facility, who is now an associate professor at the university, this lab created not only an outlet for students who sought help with their subject areas, but also served as an avenue of research for faculty and for graduate students working on theses and dissertations. Data from the lab involving student success rates in core courses, computer and technology needs, dialect studies, and more, provided faculty and graduate students with material for presentations and workshops at state and national conferences as well.

Settling In

Soon after the first director left her position in the lab to take a teaching position, the facility was moved to a larger space in the university library. This new space was not only beautiful compared to the first locations, but it also allowed for several more computer ports and more tutor tables along with an office for the director. Again, staff or graduate assistants served as directors for the lab. It continued to support students with special needs and developmental studies students exclusively, though some of the DS students returned there for help with their credit core courses. In 1989 faculty began to take whole classes of students to the lab to teach them about library research and word processing. The lab became a learning center for technology for students and for many faculty as well. Faculty development, though subtle, continued to occur in the lab along with the research available with students and classes. The third director (1989 to 1991) said that her memory of this time was that the lab represented a very personal place for students to engage in and become members of the university community. She recalled parties given for students who finished math requirements, for those who graduated after starting in the DS program, and awards ceremonies for special student achievements. The DS Lab on campus became a buzzing, lively place where faculty gave workshops for tutor training, brought their classes for projects, and engaged students in research.

Combining Forces Toward a Cooperative Learning Lab

In the early 1990s, the university library reorganized space and added a new wing. It was also time for our department to think differently about this lab, and to think on a larger scale. In 1991, the Learning Support Department hired a staff person, an experienced lab director from another college. Within a year, she developed a plan – and a university grant – that would move the Lab from the library to its own space in another building on campus, this time a very large facility shared with two other departments on campus. With this internal grant, Health Sciences, the Computer Center, and the Division of Learning Support Programs created the Cooperative Learning Lab. Near the entrance to one of the classroom buildings, a wing of this building housed an office for health sciences, along with space for their video equipment, a small office for a media specialist, a large "open" computer lab with approximately 30 computers, a large tutorial lab along with 12 tables and several more computers that had programs for math and English but were not "hooked up" to the university system or internet, several break-out rooms for individual and small group tutoring, and an office for administration. During the first five years of operation, the Cooperative Learning Lab served students from our Learning Support program in the areas of math, composition, English, and reading. Again, as students moved into credit-bearing classes, they often returned for help with upper level math courses, writing in their core and discipline courses, and general tutoring in subjects such as biology, philosophy, and psychology. The lab director hired graduate students from departments in math and English primarily, but also some peer tutors from biology and other subjects as the need arose.

Because the tutorial lab was adjacent to one of the university's open computer labs, the lab often drew students who were not part of the DS or Learning Support program. Students not involved in Learning Support, present or past, were initially discouraged from using the lab for tutoring as the director at that time believed that because the funding came from Learning Support, only those students should be served. However, probably the most influential part of the Cooperative Learning Lab that affected students outside of the Learning Support Program was the addition of Supplemental Instruction (SI; Arendale, 1998) for courses in biology, political science, accounting, and chemistry. This program used funds from the Department of Learning Support to provide stipends and tuition waivers for graduate students in the various departments. The Director trained them with the Supplemental Instruction materials from the University of Missouri's SI Program. Like other SI research, students who participated in the extended study provided by the program earned grades that averaged a whole grade level higher than those who did not take part in the optional breakout sessions (Commander, Callahan, Stratton, & Smith, 1996; Ogden, 1997).

From 1991 to 1997, the director of the lab organized a few mini-workshops for the tutors, usually conducted by professors in the department. She also created the Tutorial Clearinghouse Directory, a list of tutors for students who wanted private tutoring and who arranged and paid for this service on their own. Professors continued to find research opportunities with the students and resources in the lab as well. The director and faculty wrote many different kinds of grants, professors explored alternative ways of learning, and the lab continued to evolve.

Branching Out: Building a Comprehensive Center for Learning

In the mid-1990s, the University System of Georgia Board of Regents declared that the research universities must downsize the developmental studies population by the year 2001. From 1995 to 1997, the Learning Support Department observed serious reduction in numbers among our student population. Professors in the department had begun to reinvent both the department and themselves to focus on retention, adjunct courses, mainstreaming options, and training graduate students in the College of Arts and Sciences toward their prospective careers as professors. When the staff director left her position in the lab in the fall of 1997, the Dean insisted that a faculty member be placed in the position of director. The chair of our department asked me to take the directorship. I received one course release each semester and developed additional graduate courses for training graduate students in the lab and across the college. The reduced numbers of students in the program

translated to fewer students in the Learning Lab from the Department of Academic Foundations, the new title that attempted to indicate a move away from developmental education and into retention efforts in general. I saw the opportunity to make some changes in the lab, and said I would take it on if I could have some help from a staff member whom I knew was interested in the center and who had written a masters thesis on Supplemental Instruction, a research outcome of our SI program. Peggy Ogden and I shared the goals of serving students, training graduate students to tutor well, and creating a comprehensive center that could serve all students in the university, that would incorporate several programs related to learning assistance from other departments, and that would include faculty development opportunities while continuing to encourage grant writing and research.

For two years we provided intensive training workshops for tutors, held open houses for faculty and administrators, created and taught two new graduate courses for students who intended to teach at the postsecondary level (some of whom were our tutors, many of whom were not), expanded the number of tutors to nearly 20 some semesters, marketed the center, and tripled the number of students who visited the center within a year. We attended a Supplemental Instruction conference, and expanded the numbers of courses that utilized that form of student support. The learning lab became a comprehensive learning center. The Comprehensive Learning Center also housed Writing Across the Curriculum (WAC) writing consultants, graduate students who were granted assistantships to work with professors in their writing intensive courses, and we included them in our training program. We added an English as a Second Language (ESL) component, training graduate students from the Applied Linguistics Department. We also continued to support students with disabilities through Student Support Services and continued the Tutorial Clearing House. We focused on keeping records a little differently, including both evaluations for tutors from students who came to the center as well as from us as directors. We also added a computer program that kept track of students' visits, the course with which they were seeking help, the tutor who worked with them, and other pertinent data. Toward the end of the second year, 1999, we had a website nearly developed and online tutoring underway. We had intentionally changed the name of the lab to reflect the different perspective and "reinvention"; it was truly a "comprehensive" center rather than a cooperative learning lab at this point.

In the fall of 1999, the College of Arts and Sciences decided to disband the Department of Academic Foundations on our campus and received approval from the Board of Regents. All of the tenured faculty were reassigned to other departments in the university, and the center space was placed under the auspices of the Math Department. The ESL Department continues to use one of the breakout rooms for working with second language students, but all of the other programs were discontinued: learning support in composition and reading; tutoring in subject areas such as philosophy, biology, or political science; Supplemental Instruction; graduate training and teaching courses; and space for Writing Across the Curriculum tutors were all gone. Fortunately, the Writing Center in the English Department was able to take on many of the students who had come to us, but students taking other courses had nowhere to go to seek help. The thriving center for learning just whimpered away.

So What Have We Learned?

Along with clichés like "nothing lasts forever," "the only sure thing is change," and "it was good while it lasted," we learned a lot. We learned about budgeting, politics, and program development. We learned about what students really need and want, and what other students are willing to give and learn along the way. We learned about administration and organization and leadership. We learned about friendship and camaraderie across disciplines in ways we would not have had the opportunity to experience. Were we disappointed? Yes. We also learned about powerlessness.

Perhaps as a department we did not move quickly enough to the Comprehensive Learning Center as the focus for supporting the students admitted to the university with or without provisional status. Many articles written in the last few years indicate that DS programs are in serious trouble in terms of funding, acceptance, and future. Many writers suggest that the only way developmental education will survive is through learning assistance, not free-standing courses or programs in universities. The universities in this state

that have survived the changes shifted early enough in name and identity to a learning assistance model. At the University of Georgia in Athens, for example, the Division of Developmental Studies expanded to become the Division of Academic Assistance (Higbee & Dwinnell, 1998; Higbee, Thomas, Hayes, Glauser, & Hind, 1998). It has grown and thrived in the effort to serve students at the university, including those who have been accepted under new criteria but are not fully prepared for college-level coursework. The reading program focuses on the difficulty students have synthesizing materials from multiple sources, using strategies for remembering, moderating their understanding, and analyzing assignments (Simpson, Hind, Nist, & Burrell, 1997). Courses are also available in composition, mathematics, and a wide variety of skill areas. A learning center and tutorial services are also provided.

Another irony for us is that many of us were so busy doing research and redefining ourselves in service and new projects, like running the Learning Center, that we were still surprised by the final decision when it came. I guess many of us thought that we could contribute to the retention efforts in the university, even within a marginalized department. And, although we were on our way to answer the call for research suggested by Levin, Levin, and Scalia (1997) that would document successful outcomes such as student grade point averages, accumulated degree credits, student retention, dropout rates, and graduation rates, we did not act quickly enough to publish and promote much of the data we were gathering.

As I reflect on the years the lab was growing, evolving, and moving outward into the university, I realize that each director, including myself, met the challenges of the changing university environment, the rising admission standards, the many changes in university presidents, deans, and administrators – even in our own department – with such tunnel vision and such focus on our own research or on the Learning Lab or Comprehensive Learning Center that we could not see past the successes for students and faculty and into the politics and directions that are now so apparent. All of the glowing reports that I wrote during the last two years that the center was running fell on "blind eyes," if they were read at all. The data that we thought indicated the worth of the center had no effect on the decisions concerning the department, even as we requested that the center remain intact without the courses. The center was so connected to the department in the eyes of those in power that perhaps they could not envision it standing alone in the college, and could not or would not discuss funding it, with or without a faculty director. Therefore, one lesson to be learned here is that developmental education programs need to align themselves within the university in ways that protect the parts of their programs that can and should exist with or without a free-standing unit or department. Learning assistance is needed whether or not a developmental program exists in postsecondary institutions, regardless of dreams about drawing a "better cohort" of students. And no matter how elite the cohort of students, there will always be students with differing strengths who could benefit from a learning center like the one described here.

According to the 1998 Boyer Commission Report, research universities have "too often failed, and continue to fail, their undergraduate populations" (p. 1). Undergraduate students who provide the major sources of university income often are shortchanged, or "receive less than their money's worth" because the standing of a university is measured by its faculty research productivity, and teaching is often considered a burden shouldered only to maintain the viability of the university. Certainly this report, and others like it (Rosenzweig, 1998; Simpson, et al., 1997;) indicate a need for studying ways to assist students, and faculty, toward choosing and planning curricula and selecting evaluation measures appropriate to retention efforts.

Finally, if this history contributes at all to the future of assistance centers or developmental programs, perhaps it can serve as a comprehensive model for retention efforts in more fortunate programs. My deepest regret for the students at the university, and perhaps for the university itself, is that they lost the best retention effort they had.

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The General College Base Curriculum: Description, Historical Antecedents, Theoretical Structure, and Evaluation Outcomes

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In 1988 the faculty of the General College of the University of Minnesota established a new curriculum for its students. In this chapter we describe how the curriculum has as its primary goal the developing of students' academic skills in content courses with skills instruction embedded in them. We also review how the concept of general education, a focus on student needs and potentials, and a concern with degree progress has shaped the curriculum. Finally, we review some of the evaluation research supporting the curriculum's efficacy.

> Beginning fall, 1988, the General College will initiate A Base Curriculum for Students Entering General College. Addressed to the needs of our newly-targeted populations, this program complements the redefined mission of the College and strives for its fulfillment through provision of the most supportive instructional environment possible which enables students to begin the process of developing the skill and knowledge level required for success in baccalaureate programs.

The above paragraph introduced a resolution passed by the faculty of the University of Minnesota's General College on July 5, 1988, establishing a new curriculum for its students. The Base Curriculum (BC) was designed to provide a developmental first year collegiate experience for General College (GC) freshmen who were underqualified compared to other university students. The resolution went on to describe curriculum goals; pledge the cooperation of faculty, advisors, and other staff to meet these goals; and outline an evaluation plan. The BC has guided developmental education in GC since that date. This chapter briefly describes the BC, reviews the historical trends that led to establishment of the BC, outlines the BC's theoretical structure, and summarizes research on its effectiveness.

General College Base Curriculum

The GC Curriculum Committee stated the goals of the BC in its early assessment of the experiment (A Guiding Document, 1990). The overall goals of the curriculum are to enable students to:

1. develop their academic skills (i.e., reading, oral and written communication, math and computer literacy) and successfully apply them to college-level coursework;

2. build and use a foundation of general knowledge in the humanities, social and natural sciences to identify, describe, analyze, reflect upon, or solve issues/problems;

3. demonstrate greater awareness of and respect for individual, cultural, ethnic, and religious differences;

4. develop attitudes and behaviors (i.e., class participation, use of learning resources, task completion, appropriate interaction with peers, faculty, and staff on academic issues) that are associated with success in college; and

5. understand themselves better as learners; evaluate their own strengths, limitations, and

interests; and set attainable academic and career goals. (A Guiding Document, p. 6)

To implement these goals, the Curriculum Committee called for faculty and staff to work closely together to develop courses and support structures that facilitate student success. The primary goal of developing students' academic skills was reaffirmed as occurring in "content courses with skills instruction embedded in them and content courses that require mastery of those skills" (A Guiding Document, 1990, p. 6). Similarly, because students need to build a foundation of general knowledge, the Committee also reaffirmed the need for the BC to consist of liberal arts courses transferable to other colleges as requirements or electives. Promoting awareness of and respect for diversity was to be accomplished by faculty through a variety of teaching objectives, strategies, content, and materials. Finally, to help students develop as successful and self-aware learners, faculty members were to do frequent student assessment, give frequent feedback, and utilize in-class strategies that promote student self-assessment.

Translation of the BC goals into coursework involved specifying four general areas in which courses were to prepare students: academic skills (Goal 1), content knowledge (Goal 2), multicultural perspectives (Goal 3), and academic acculturation (Goals 3 & 4). We summarize each of these four areas below.

Academic Skills

This area consisted of "processes involved with both acquiring and demonstrating knowledge" (A Guiding Document, 1990, p. 7). Included are specific skills such as reading text, understanding lecture, participating in discussion, performing quantitative manipulations, writing, and using computers to solve problems. Prior to the implementation of the BC the college offered an array of stand-alone courses in reading, writing, study skills, and mathematics. The BC located development of reading, writing, and study skills in content courses and placed all students into a college level basic writing course. Courses in precollege level mathematics were retained and kept available to any University of Minnesota (U of M) student who needed them.

Content Knowledge

Because the U of M required students to gain breadth of knowledge in their coursework, the BC consisted primarily of natural science, social science, and humanities courses. Thus, the BC was to impart to students the traditional liberal arts goal of attaining content knowledge in the "body of general knowledge of the natural and social world shared by college-educated people" (A Guiding Document, 1990, p. 9). BC courses were designed in five disciplinary groups: mathematical thinking, composition, social sciences, physical and biological sciences, and humanities. Students were required to take at least one course from each group during their first year. After taking a BC group course, a student could take a course in that group outside of the BC, including courses in other U of M colleges. Taking these non-GC courses allowed students to make a "seamless" transfer to degree granting colleges.

Multicultural Perspective

The GC faculty defined this as "the development of an awareness and respect for human cultures and the racial, ethnic, religious, gender and other differences that characterize them" (A Guiding Document, 1990, p. 9). Although not articulating any minimum standards, the document committed the faculty to make it "pervasive in the curriculum."

Academic Acculturation

This area recognized that students need to learn how to function in the university environment. The BC was to help develop students' study-management skills and model academic behaviors and values. Study-management skills included "time management, test taking, library skills, condensing and summarizing, techniques for organizing knowledge, familiarity with different learning strategies, awareness of personal learning styles and their strengths and limitations" (A Guiding Document, 1990, p. 10). Students were to acquire these behaviors through meetings with the academic advising staff, and through a noncredit extended orientation seminar made available for some students. However, the main source of support for academic acculturation was to occur in academic coursework, where content instructors would reinforce

the behaviors in different ways. Academic behaviors and values included making use of university resources (e.g., libraries, computer labs, counseling center, resource centers for students of color) as well as GC resources such as the Reading and Writing Center and the Math Center. The foundational value of learning and organized inquiry was to be reinforced by all interactions with advisors and instructors and to be part of all courses in the BC. Study skills courses remained available to students as electives through the all campus Learning and Academic Skills department, which provided these courses for all university students. GC students who expressed interest in formal courses in study skills were encouraged to enroll in them.

The GC Curriculum Committee provided specific directions to instructors on how to structure their courses to meet the BC goals (A Guiding Document, 1990, pp. 12-13). First, all courses were to be sensitive to diversity, focus on the student as a learner, utilize pedagogies shown to be effective with developmental students, state learner outcomes objectives, be personally relevant to students, and utilize explicit methods for student assessment and class management. In addition, BC courses were to include as many of the following characteristics as feasible: (a) a high level of structure and organization; (b) a balance of skill development objectives and content objectives; (c) explicit instruction in how to accomplish academic tasks in the course; (d) explicit instruction in the use of College and University resources; (e) repeated application of skills to accomplish academic tasks; (f) career exploration; (g) greater opportunities for one-on-one help from instructors or teaching assistants; (h) more supplemental help available (e.g., peer study groups, tutoring in the Reading, Writing, and Math centers); (i) frequent student assessment and feedback in class by the instructor; (j) monitoring of students by way of Academic Alerts and mandatory Progress Reviews; (k) smaller class sizes; and (l) acceptability and fulfillment of degree requirements in other colleges.

The GC Curriculum Committee further explicated the requirements for students matriculating in GC and how the BC goals were to be implemented. In essence, the development of students was to be done primarily in the college's general education curriculum by its regular faculty with consistent reinforcement by advisors. In addition, the committee reaffirmed the need for regular and comprehensive evaluation of the curriculum.

Historical Antecedents

To understand the Base Curriculum fully, we must consider the historical context from which it developed. Founded in 1932, the General College's roots go deep into two democratizing ideas in American higher education (Moen, 1979). First, it derived from the idea of the land-grant college Morrill Act of 1862 that granted federal lands to states to finance tuition-free colleges. These institutions were "not just for the few, not just for the rich or well born . . . but for the many; for those who in the language of the 1800s were called the mechanics and industrial classes" (Moen, p. 1). Second, it carried John Dewey's idea of "instrumentalist general education, that curriculum should be instrumental and utilitarian rather than an end in themselves" (p. 1).

In his writings, Norman Moen (1979, 1982, 1983) pointed out that the open admissions policies of the University of Minnesota's College of Science, Literature, and the Arts (SLA) were drawing criticism in the 1920s because half of entering students were not finishing degrees. The SLA dean was concerned that the school had become a revolving door and wanted to restrict admissions. However, the University president, Lotus Coffman, believed all Minnesotans deserved an opportunity to obtain higher education. He also believed that the state already had more doctors, lawyers, engineers and teachers than it needed, but that the need for intelligent citizens was limitless. He appointed a committee of seven to come up with solutions, and they proposed the founding of two new colleges, University College and the Junior College. What is now called GC was to be a junior college for the University of Minnesota. Malcolm McClean, who was trained in English, became the first director. He enlisted the help of Fred Hovde, who was trained in engineering and later became president of Purdue University, and Ed Williamson, a pioneer in educational counseling. They taught the first courses: Individual Orientation, Vocational Orientation, Home Life Orientation, Socio-Civic Orientation, General Arts, Literature, Speech, and Writing in the cramped, in need of repair, upper floors of a building recently vacated by the Dentistry School.

The new bulletin (The University Junior College, 1932) called for "a two year rounded education for that half of the University of Minnesota students who do not at present graduate from a four-year or longer course of study" (p. 3). Dewey's ideas permeated the bulletin as is illustrated in the statement of principle by the faculty that "we are intending to give students of the Junior College as concrete, general, vivid, and realistic picture of themselves and the world they live in as can be devised" (p. 5). The bulletin further stated that certificates would be awarded to students upon satisfactory completion of two years of work but that means for transfer to other colleges of the university would be available for "students who, having done satisfactory work in the Junior College and having found the field of their specialty, wish to go on for longer training" (p. 10). This near afterthought was to become the primary GC mission five decades later.

During the 1930s the college was a proving ground for the new field of educational psychology. The college delivered courses that had no credits or grades and successful completion was assessed by comprehensive examinations. Notable psychologists such as Melvin Haggerty, Leonard Koos, Jack Darley, Cornelia Taylor Williams (1943), Robert Pace (1941), and Ruth Eckert (1943) conducted studies on student progress and wrote works that became classics in the literature on higher education. In 1941 GC became a separate budgetary unit with its own faculty and in 1946 then director Horace T. Morse became the first dean. During the 1940s and 1950s enrollments grew and the curriculum became more traditional. Many occupational programs (e.g., legal assistant, radiological technology, human services technician) were added and students earned occupational certificates and associate (AA) degrees (Moen, 1979, 1983).

In the 1960s, unrest over civil rights and the Vietnam war led to demands for easier access for people of color, women, the economically disadvantaged, and older students; accreditation for nontraditional learning; experiential learning; innovative degree structures, and individualized studies. Social outreach agencies such as the Higher Education for Low-income Parents (HELP) Center were established, and GC was asked to expand its Deweyan tradition to baccalaureate degrees. The baccalaureate program stimulated further growth in enrollment so that in 1985 the college had about 50 faculty members and 4000 students.

The baccalaureate program at its zenith in the early 1980s consisted of two student-designed degrees that made use of over 200 junior and senior level courses developed by GC faculty over a 10 year period. Approximately 400 students were pursuing degrees and taking GC courses as well as courses from other colleges at the university to satisfy degree requirements.

In 1985 things changed radically. The community college system, built in the 1960s, offered a full array of occupational certificate programs. Also, the Minnesota State University System had launched Metropolitan State University in the Twin Cities, which offered a two-year upper division degree program similar to GC baccalaureate degrees. Voices at the legislature asked the higher education systems to consider ways of eliminating duplication between systems and to develop mission differentiation plans. The governor demanded that the university save money by eliminating GC.

University president Kenneth Keller proposed that GC occupational programs, baccalaureate degrees, and AA degrees be eliminated. His plan was to have the college reconstitute itself as a unit that prepared developmental students for transfer to the degree granting colleges. In exchange, his administration promised a new office wing and renovated space in the former pharmacy building along with generous budgets during the transition.

This change did not come easily. The faculty was split, and a well-organized campaign to block the changes was defeated in a close vote by the University Board of Regents. As a result, many faculty members retired, six transferred their tenure lines to other colleges of the University of Minnesota, and the rest set about retooling for their new mission. The turmoil contributed to the GC dean's resignation to take a university vice president post. Two acting deans presided over the subsequent transition until 1988, when David V. Taylor was appointed dean. Taylor has led the college through a period of internal, if not external, stability and sense of purpose. With his leadership, a university administration proposal to close GC in 1996 was defeated 11 to 1 by the Board of Regents after a spirited, community-wide campaign.

A good part of the stability over the past 16 years has been the sense of purpose and optimism generated by the Base Curriculum.

Theoretical Structure

The General College Base Curriculum was born of necessity but did not emerge from a vacuum. Its designers were part of a tradition extending back over five decades in GC and back further from GC's inception. First, there was the Deweyan notion that education is for people and not in and of itself the primary good (Moen, 1979). The GC focus has always been on students and their needs and aspirations; the curriculum was to serve that. The primary concern of GC faculty members has always been the student rather than academic disciplines. Thus, while grounded in traditional disciplines, the GC faculty has focused on student development rather than disciplinary training.

Second, the founders of GC recognized that most students would terminate with the GC certificate but that some would find they aspired to develop further than might have been expected given their initial circumstances. The GC curriculum has always been designed to meet students where they are and make it possible for them to achieve their goals. This tradition obligated the college to eschew a priori exclusionary judgments about student potential because it was founded to keep the U of M open-access as other units became more selective.

Third, several research trends in higher education provided an impetus to create the BC. A Carnegie Foundation Report critical of the skill levels of college students stimulated our faculty to research ways that skills development could be done within regular college courses (Miller, Brothen, Hatch, & Moen, 1988). We were concerned about what other writers warned of as the destructive educational, social, and political consequences of the "knowledge gap" (Gould & Heyda, 1986; Hairston, 1983; Rose, 1985) created when segments of the population are excluded from the content curriculum. The environment necessary to unite skills development with development of knowledge did not seem to reside in the traditional approach to teaching developmental students. Richardson, Fisk, and Okun (1983) showed convincingly that placing students in isolated skills courses before they proceeded to the regular curriculum did not achieve true educational progress. Students may have indeed learned skills, but that did not translate into degrees.

The BC designers utilized a substantial body of research done in the 1980s that had already demonstrated the effectiveness of writing across the curriculum practices on writing performance and content learning (Fulwiler & Young, 1982; Griffin, 1985). Similarly, they applied a body of reading research (Vacca & Vacca, 1986) demonstrating the discipline specific nature of college reading. Evaluations of the existing GC process of testing and placing students into precollege reading and writing courses suggested that the placement process was not valid and the courses were not particularly effective in preparing students for work in discipline courses and, therefore, should be abandoned. Data also showed that precollege indicators such as standardized test scores and high school grades were not good predictors of students' success in our courses. In contrast, first quarter grades predicted success with greater than 90% accuracy.

Because registration for BC courses was not based on placement testing, advising was an essential component of the model. The college adopted an intrusive advising model that called for communication between faculty and staff about student progress. Advisors utilized proactive advising strategies that directed students to interventions as the need developed.

The multicultural component of the BC was informed by the work of James Banks (Banks & Banks, 1989) and the freedom pedagogies of Paulo Freire (Freire, 1993; Shor, 1987). These perspectives called on faculty to go beyond inclusion of information about people of color to including diverse perspectives on the creation of knowledge and the political contexts in which knowledge exists. These constructivist perspectives were deeply embedded in the composition courses.

All of the trends and research findings noted above contributed to the BC planners adopting what we have called the criterion model of developmental education (Wambach & Brothen, 1990, 2000). In brief, this model rejects testing and mandatory placement into remedial literacy skills courses and calls for placement of underqualified students into supported content

courses. This approach is especially appropriate in GC given that nearly all of the entering students have met the U of M high school preparation standards in English and Social Studies. In mathematics, however, many entering students have not met the high school preparation requirements. Because of this, the College retained placement testing in mathematics and used them, along with information from other standardized mathematics tests and high school records, to help students select appropriate mathematics or mathematical thinking courses.

The BC emphasis on skills development in a content knowledge context drew heavily on the GC tradition of thematic package and paired courses (Moen, 1982, p. 49). Many of the BC principles were tested in a paired course experiment that linked courses in writing, history, and biology (Miller et al., 1988). That project successfully put these principles into practice and provided a final push for adoption of the BC.

Evaluation of the Base Curriculum

Evaluation of the Base Curriculum has occurred both at the institutional (i.e., college) and individual (faculty and staff) level. At the college level, GC supported an institutional research office that coordinated evaluations of the curriculum, advising, and student experience. In addition, GC faculty and staff pursued research examining the effects of their pedagogy and support services on student learning. This body of research is too extensive to review here so the focus of this discussion will be on evaluations conducted at the college level.

In preparation for implementation of the Base Curriculum, Schmitz (1988) surveyed former GC students who had transferred to other U of M colleges about their GC experiences and academic experiences since transfer. Schmitz also surveyed non-GC faculty members who taught introductory and intermediate courses about their instructional practices. GC faculty used the results of these surveys as they designed courses intended to prepare students for success after transfer.

During winter quarter 1989, after the first term of the BC, Schmitz surveyed GC faculty and staff about a wide array of issues related to BC implementation. The surveys were followed up with faculty, advisor, and student interviews. This research confirmed that writing to learn pedagogies were an important part of the BC. Collaborative learning, frequent testing, and explicit study skill instruction also emerged as important components.

In the fall of 1989 two other examinations of the BC occurred. Wambach (1991) observed 22 BC courses over an entire academic term, recording faculty and student behavior. She found that lecture and questioning remained the mainstay of BC pedagogy. However, there was evidence of increased use of group activities, especially in smaller courses. Use of instructional technology was also emerging as a major component of courses in writing and psychology. Schmitz and Andreozzi (1990) conducted in-depth interviews with a small cohort of GC students. They found that students who dropped out of GC had gotten low grades and had not identified goals to sustain their effort in higher education.

One of the main targets for evaluation was the GC writing program. The BC eliminated precollege reading and writing courses and placed all students into the same basic writing course, GC 1421, so students' performance in this course was carefully examined. Research on the program revealed that 87% of students participating passed the course and that students who completed the GC writing program performed successfully in advanced college writing courses (delMas, 1994; Wambach & delMas, 1998a). A comprehensive study using holistic scoring of students' writing suggested that students demonstrated gains in skills while they were enrolled in the courses (Wambach & delMas, 1998b). This research supported the decision to place all GC students directly into basic writing.

The mathematics program has also been studied in depth. Placement into mathematics is strongly influenced by the results of a placement test, so the validity of that test has been examined in a series of studies (delMas, 1995; Hatfield, 2001; Kinney, 2000). These studies suggested that the placement process has acceptable validity and that most students who took college level mathematics courses after their GC mathematics courses passed them.

A series of ongoing research studies also tracked GC students' retention and transfer to degree programs. This research suggested that as the BC was implemented, both retention and transfer increased

(e.g., Wambach & delMas, 1998a). Recent research on student satisfaction at the U of M suggests that GC freshmen are more satisfied with their experiences than other freshmen at the university (Merabella & Wambach, 2001).

Research has also revealed ongoing issues with the BC. A survey of transferred students completed in 1995 (Wambach & Woods) suggested that some students viewed their experience in the college as too similar to high school. A variety of experiences such as smaller class sizes, active learning pedagogy, learning communities, and intrusive advising were identified as "high schoolish" by some students. Yet these are the strategies research identified as effective in enhancing learning and retention. Follow-up research on this issue suggested that although most freshmen find their experiences with the BC to be academically challenging, some courses were viewed as less challenging than others (Wambach, Thatcher, & Woods, 1996). This information was used to retool some areas of the curriculum. However, the perceptions of the college and its curriculum are clearly affected by the stigma attached to participation in an academic program for less academically qualified students. Many courses in the college would be viewed differently by students were they offered outside GC. Dealing with stigma is an important task for GC students, faculty, and staff (Pedelty, 2001). This remains a significant challenge for us as developmental educators.

Conclusion

The General College faculty and staff have found the Base Curriculum to be useful in designing and revising courses, advising students, and stimulating research on a variety of issues relevant to the progress of developmental students. For example, the BC requirement that students get timely grade feedback has led us to implement college wide mid-semester grade reports that are sent to students and advisors two times during the term. An evaluation of that approach currently underway suggests that students value the feedback and advisors appreciate the information to help them suggest appropriate interventions and proper registration for the following term. In our own case, we have maintained a research program with our general psychology class that supports the goals of the BC (Brothen & Wambach, 2000).

The General College Base Curriculum has a long history and a short past. It is rooted in the instrumentalist general education tradition of John Dewey and in the land grant philosophy that still pervades the University of Minnesota. We believe that this history speaks to the needs of society today and that the Base Curriculum provides an effective model for how to serve developmental students.

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The Lessons of History: Transforming Science to Include Developmental Education

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Science education has a long history of excluding developmental education students. Programs that have overcome this historical inertia have usually done so in a five-step process in which faculty and administrators (a) initially do not notice or care about the absence of developmental education students; (b) note the problem but implement ineffective changes; (c) identify and eliminate barriers that exclude developmental education students from science; (d) promote the contributions of women, ethnic minorities, students with disabilities, and students from economically disadvantaged backgrounds; and (e) redefine and restructure science education to include all students. These stages of curricular transformation ensure that all students, regardless of their gender, ethnicity, or social status, can learn about science in a nurturing environment.

Science has long been dominated by White males. The earliest barriers to the participation of others in science were economic; for example, science in the 1600s, 1700s, and 1800s was often practiced only by wealthy White males (e.g., Charles Darwin). In more recent times, political events have often led to other barriers. For example, when the Soviet Union launched Sputnik I in 1957, the United States feared that it could not compete technologically with other world powers. To address this problem, government officials poured millions of dollars into science education. Science became very competitive and soon was perceived as being only for the "best and brightest" students. Developmental education students, such as ethnic minorities, persons with disabilities, and people from economically disadvantaged backgrounds, were guided away from science and into other careers. Another "reform" of science education occurred in the 1980s when American students scored poorly on international tests. This reform of science, like those before it, did little to remove barriers that excluded developmental education students (Moore, 2001).

Today, science education remains a hostile neighborhood for students in developmental education. Many scientists and science educators continue to believe that science is beyond the grasp of developmental education students. This is why virtually all universities include only reading, writing, and math—and not science—in their developmental education programs (Moore, 2001; National Science Foundation, 2000).

Although developmental education has a long and productive history of service to postsecondary education (Boylan, 1988; Maxwell, 1997; Stahl & King, 2000), the longstanding belief that developmental education students cannot succeed in science has marginalized, silenced, and in some cases excluded the students who tend to be overrepresented in developmental education, namely women, ethnic minorities, students with disabilities, and students from economically disadvantaged backgrounds (Moore, 2001).

Women, ethnic minorities, and students with disabilities are entering math, engineering, and the physical sciences and getting degrees at rates far lower than their representation in the population (Rosser, 1995). Most women and minorities in science are in biology and psychology, but even in these fields they remain a minority (Rosser, 1995). Regardless of their discipline, minority students in science have significantly higher attrition rates than do nonminority students. Similarly, scientists who are minorities continue to receive lower salaries than nonminority scientists (National Science Foundation, 2000).

Young White males have a significantly more positive attitude toward science than do women,

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African Americans, and Hispanics (Rakow, 1985). Once in the educational "pipeline," the confidence of males increases while that of females decreases (Vasquez, 1998); this helps explain why far more women than men drop out of science courses and programs (Lawler, 1999). This disparity between men and women in science programs is often unrelated to academic ability, for it persists despite the fact that many of the students who drop out are well prepared for college and have high grade point averages (e.g., Newkirk, 2001). That is, poor grades alone do not account for why science is such a hostile neighborhood for many developmental education students.

The exclusion of developmental education students from science has long-term effects that contribute significantly to the startling lack of diversity in science. For example:

1. Although Blacks and Hispanics constitute 10% and 7%, respectively, of the employed labor force in the United States, each represents only about 3% of all employed scientists and engineers (National Science Foundation, 1990).

2. Women constitute 45% of the employed labor force in the U.S., but only 16% of all employed scientists and engineers (National Science Foundation, 1992). Women constitute only "1 percent of working environmental engineers, 2 percent of mechanical engineers, 3 percent of electrical engineers, 4 percent of medical school department directors, 5 percent of physics doctoral degrees, [and] 6 out of about 300 tenured professors in the country's top 10 math departments" (Holloway, 1993, p. 96). Women constitute about 12% of the employed scientific and engineering labor force in industry.

3. Of the 1,647 living scientists elected to the National Academy of Science, only 70 are women (Rosser, 1995). Women who remain in science are often displeased and transmit their uneasiness to female students and younger female colleagues (Lawler, 1999).

The longstanding domination of science by White males (Vasquez, 1998), combined with the ongoing marginalization and exclusion of women, ethnic minorities, and others, has often produced experiments, data, theories, and conclusions that reflect the biases of White males (Harding, 1991; Longino, 1990). For example, before 1993, when President Bill Clinton signed legislation requiring the National Institutes of Health (NIH) to include women and minorities in all of their clinical health studies, there was no federal policy to adequately enforce the representation of these two groups in public health research. As a result, scientists and science teachers often lacked data for a variety of important phenomena that affect women and minorities (e.g., the contraction of AIDS by women; see Link, 1998).

Science Education and Developmental Education Students

Developmental education students heed the many messages—both overt and covert—that they are not welcome in science, that they are often blocked from entering science, and that they have no future in science (Barton, 1998; Kahle, 1988). These messages, combined with the students' and teachers' lower expectations, reduced participation in science-related activities, and overall anxiety about science, convince most developmental education students that they should avoid science. They do.

Although science programs at most colleges and universities continue to be dominated by the belief that developmental education students are not suited for science, some institutions have realized that their standards and practices are discriminatory and have arbitrarily denied the access of many qualified students to science. In some cases, these institutions have changed their science programs to provide greater access and opportunities for developmental education students. They have done this by (a) rejecting the longstanding notion that developmental education students are inferior and cannot succeed in science, and (b) examining the structural and institutional barriers that have blocked developmental education students from science (Brickhouse, 1994).

The histories of science education and developmental education tell us that we need to make science education programs more appealing to developmental education students. Many programs have changed to accomplish this goal. In this chapter I use the histories of science and developmental education to understand how science education

programs can embrace teaching science to all students and, in the process, increase the access of developmental education students to science. As will be obvious from the following discussion, minorities of both sexes are often excluded from science for the same reasons that White women are excluded (George, 1982; Matyas & Malcolm, 1991).

Increasing Access in Science: The Phases of Curriculum Transformation

Ignoring the Problem

In programs at this stage of curricular development, faculty, administrators, and students do not know or care that developmental education students and their concerns are excluded from science programs. In these programs, no one asks or cares about how their courses, pedagogical techniques, student services, or attitudes contribute to the retention and success of students. Many programs in math, engineering, and the physical sciences are at this stage of development.

Administrators and faculty in these programs often justify the exclusion and absence of developmental education students from science with the longstanding belief that because science is objective and value-free, factors such as gender, ethnicity, and background are irrelevant to what scientific knowledge is produced or who becomes a scientist. Because these faculty and administrators often reject the notion that ethnicity and gender influence experiments, ideas, results, and conclusions in science, their programs usually perpetuate the hostilities that developmental education students encounter; these are the biases of the White, upper/middle-class, heterosexual males who dominate the programs and who determine what subjects should be studied, what subjects are interesting and important, and what answers and conclusions should be obtained. These biases convince many developmental education students that they are not "scientific" because they either do not see or are not interested in observing the "right things" (Rosser, 1995). Although these faculty and administrators acknowledge that students have different backgrounds, they (a) are often unaware that their expectations are based on socioeconomic class, ethnicity, and gender (Stegemiller, 1989), and (b) assume that the students' differing performances are due only to the students' innate abilities and motivations. No one in these programs thinks or cares much about what it could mean to teach science in ways that embrace rather than marginalize or exclude so many students.

The histories of several disciplines (e.g., women's studies, psychology) have shown us that ethnicity, gender, background, culture, and socioeconomic class do influence and therefore bias science and science education. Different backgrounds usually produce different observations; for example, female primatologists made unique observations that led to important new theories (e.g., female-female interactions) which led to new ideas (e.g., Fossey, 1983; Goodall, 1971; Hrdy, 1984).

Women, ethnic minorities, students with disabilities, and others often continue to be marginalized by longstanding misconceptions that they are neither fit for nor interested in careers in science, that they make poor risks as graduate students because they are "unqualified" for science, and that they cannot contribute as much as White men. These misconceptions, combined with the fact that women and minorities have traditionally received fewer resources and rewards than White men, have made careers in science especially difficult for women and minorities (National Science Foundation, 2000). When these students avoid or leave science, we often excuse their marginalization and exclusion from science with self-serving excuses such as "It's probably best for them, anyway" or "He's disabled—what do you expect?" These results and excuses are consistent with the beliefs that these students are often obstacles to developing a quality science program; for example, students with disabilities are often told that they can't do science because of their reduced dexterity or mobility. Similarly, women are often expected to be home with children, whether they have children or not or whether they want to be there or not. To many people, the phrases disabled scientist, minority scientist and woman scientist are contradictions; if such people exist at all, they are somehow "unnatural"—either an atypical person, or an atypical scientist (e.g., Rossiter, 1982). Today, as in the past, women and minorities must often overcome the consequences of self-fulfilling prophecies (Doyle, 2000) that dominate science education programs at this stage of curricular development.

Noticing the Problem but Implementing Ineffective Changes

Historically, programs at this stage of curricular development typically intervene with compensatory programs that enroll more developmental education students in their courses. This "add-developmental-education-students-and-stir" approach to the problem seldom succeeds because (a) the courses and programs in which the developmental education students are placed remain as hostile to these students as before, and (b) it continues to emphasize the alleged deficiencies of students rather than the obstacles and discriminatory practices of science and science education. In these programs, courses remain a "filter" that excludes students from science rather than a "pump" that helps ensure students' access to and success in science.

Another strategy typical of faculty and administrators in programs at this stage of curricular development involves sending developmental education students into "remedial" and "skills" courses rather than content courses, thereby blocking the participation of developmental education students in mainstream science courses. Many studies question this strategy. For example, Richardson, Fisk, and Oken (1983) found that stand-alone skills courses are a dead-end for many students, and Broughan (2000) found that well over half of the students placed in multiple remedial courses never earned even one credit-hour. Moreover, (a) students in remedial courses learn less, probably because of lower and more-negative teacher-expectations and less challenging course-content (Atwater, 1994), and (b) the grouping of students in remedial courses adds to, rather than diminishes, preexisting academic inequalities because such "labeling" further lowers students' self-confidence, further lowers teachers' expectations and perceptions, and often leads to poor teaching (Lavin, 1996; Samuda, 1986). Ability-grouping (e.g., based on norm-referenced assessments) in remedial courses is especially harmful to minority students because it perpetuates the ethnic and socioeconomic segregation and imbalance typical of many educational programs (Atwater, 1994). As noted by Marriott (2001), these low teacher expectations, combined with students' inadequate preparation, often help students learn their learning disability; Samuda (1986) even refers to ability grouping (including the mindset that all students must be judged according to the same standards, procedures, and values regardless of cultural or class differences) as structural racism. It is difficult to see how placing students in remedial courses can be a better alternative to the opportunity to succeed in a content course.

Faculty and administrators in programs at this stage of curricular development also often demand that developmental education students take science and other courses at two-year colleges, not research universities (Stratton, 1998). This policy worsens the problem faced by many students in developmental education. For example, African American and Hispanic students at two-year colleges have much lower rates of retention than White students; that is, two-year colleges disproportionately eliminate minority students. Meanwhile, developmental education programs at research universities retain and graduate significantly more African American and Hispanic students than do two-year colleges (Boylan, Bliss, & Bonham, 1993). Forcing at-risk students to take remedial courses at two-year schools will probably reduce the number of university graduates, especially the number of minority and low-income students who earn university degrees (Stratton). As noted by Hunter Boylan, relegating developmental education students to community colleges "is not an educationally sound idea" (Stratton, p. 27).

Progressing beyond this stage of curricular development requires that faculty and administrators shift their focus from reactively blaming students for their alleged failures to proactively identifying and eliminating barriers that block students' access students to science (Moore, 2001).

Identifying and Removing Barriers

This phase of curricular transformation often starts when students, faculty, and administrators recognize that women, ethnic minorities, economically disadvantaged students, and others have been excluded from science and wonder how this has affected science. These faculty and administrators begin to understand that poor academic performance historically involves far more complex factors than a student's inability to solve for x in an equation or write a grammatically correct sentence; if these were the only problems that developmental education students

faced in college, then remediation would be a simple solution. On the contrary, students' academic success also involves several noncognitive (i.e., developmental) factors, including self-confidence, control, attitudes about education, social justice, and their ability to seek help (Boylan & Saxon, 1998). Clearly, these factors have nothing to do with a student's academic skills or intellectual ability.

Students, faculty, and administrators do not have to look far to find examples of how talented women and minorities are excluded by the current ways that science is taught and practiced (Fausto-Sterling, 1992; Harding, 1986; Moore, 2001; Rosser, 1995). For example, many developmental education students are not interested in many research topics (e.g., military-related problems) and pedagogical approaches that have been favorites of the White males who have dominated science for generations. Highly competitive "weed out" courses are unlikely to appeal to even the best developmental education students because these students often suffer from lower academic self-concept and self-esteem, which decreases even further while they are in college (Astin & Astin, 1993; Davis, 1993; Mills, 1993). This, combined with the fact that many developmental education students tend to blame themselves for failure while attributing their successes to luck, exacerbates the problem (Kahle, 1988; Rosser, 1995).

Many women approach science from a different, less competitive, and more holistic perspective than men (Kahle & Meece, 1994; Rosser, 1995). For example, many women would rather study interdisciplinary, socially useful problems than the hierarchical, reductionist, and dualistic problems that often typify male-dominated science (Belenky, Clinchy, Goldberger & Tarule, 1986; Harding, 1985; Kahle, 1985; Rosser, 1993). Many women do not want to participate in the aspects of science that they consider to be destructive to humans, other animals, and the environment (Halpin, 1989). Although these students are not usually vocal or adamant about their ideas, they are uncomfortable.

Progressing beyond this stage of curricular development requires that faculty and administrators understand that they can increase all students' access to science by incorporating new ways of teaching and learning based on new experiences and perspectives. These new approaches include the following:

1. Encourage students to become connected with what they study. For example, Nobel laureate Barbara McClintock's insistence on having a "feel for" her corn plants (Keller, 1983) and Dian Fossey's personalized interactions with mountain gorillas (Sapolsky, 2001) differed dramatically from the "objective" approaches of men that were based on putting distance between the scientist and his subject. The "connected" approaches of McClintock, Fossey, and others, which often enhances learning by women, contrasts the misconception that scientists are isolated and distant from what they study (Hubbard, 1990; Rosser, 1995).

2. Encourage students to view science in a larger context. Although most science programs promote competition, dualistic thinking, and the domination of nature, many ethnic minorities emphasize group cooperation, holistic thinking, and social justice (Anderson, 1988; Caduto & Bruchae, 1989; Hadfield, Martin, & Wooden, 1992). Teachers can make their courses more accessible to these students by making their courses less competitive, emphasizing the social context of science, and showing how science improves people's lives (Moore, 2001). Similarly, show students that science is one part of life that is compatible with their other goals; the belief that women in science have added obstacles due to their concerns about marriage and family often causes women to leave science (Arnold, 1987; Gardner, 1986; Matyas, 1985).

3. Offer smaller, more personal classes in which all students have equal access to instructors and which include multiple ways of knowing and doing science (Barton & Osborne, 1995; Brickhouse, 1994; Roychoudhury, Tippins, & Nichols, 1993, 1995). The high rate of attrition of highly qualified women and minorities from many science programs may be due to large, impersonal, and restrictive introductory courses based entirely on monolithic lectures and multiple-choice exams having one correct answer (Rosser, 1995). Effectively teaching all students, including those in developmental education, requires that teachers use a variety of pedagogical techniques (Moore, 2001). Merely repeating information more slowly and loudly does not increase comprehension.

4. Design courses to engage all students, including developmental education students. Some developmental education students maintain a low profile in classrooms despite the fact that they like the course (Fordham, 1993; Fordham & Ogbu, 1986); many others are

apprehensive about science because they have had significantly less experience with science and scientific equipment (Educational Testing Service, 1988). Teachers can help overcome these concerns by incorporating more time into their classes for critical thinking, learning communities, supplemental instruction, and hands-on work and observations (Moore, 2001; Rosser, 1995) Teachers should also encourage students to gather data themselves. However, do not let developmental education students become secretaries while other students manipulate organisms or operate scientific equipment.

Students Learn the Unique Contributions of Women, Minority, and Disabled Scientists

Many students—developmental and otherwise—feel excluded from or marginalized by science when they see only White male scientists as role models. This exclusion of women and minorities is strengthened when their work is ignored, misrepresented, discounted (e.g., because of speech patterns and other verbal and nonverbal forms of communication; see Hall & Sandler, 1982; Tannen, 1990), described as nonscience, or attributed to White males with whom they worked (e.g., Ehrenreich & English, 1978; Hynes, 1984). This problem is best addressed by emphasizing case studies from the history of science. For example, Ellen Swallow's studies of environmental pollution, sanitation, and waste disposal contributed significantly to the birth of ecology, but were described as "home economics"—and then dismissed as nonscience—largely because the work was done by a woman (Hynes, 1984, 1989). Similarly, the initial rejection of Rachel Carson's contributions to ecology and Barbara McClintock's discovery of genetic transposition was largely due to the fact that Carson and McClintock were women whose empathetic approach to science challenged the prevailing, impersonal, reductionist style followed by most male scientists (Keller, 1983; Moore, 1997).

Teachers can help students overcome these misconceptions by (a) incorporating and validating the contributions of women, minorities, and scientists with disabilities who have made significant contributions to science, (b) featuring influential women and minorities who are in decision-making positions in the hierarchy of science, (c) showing students that women and minorities often have made significant contributions to the work for which men have received prizes and recognition, and (d) encouraging students to uncover biases and stereotypes in science about topics such as race, class, and sexual orientation (e.g., racism by scientists and the use of science to justify racism are powerful deterrents to minorities' participation in science; Rossiter, 1982). Emphasizing the lives of ordinary women scientists and mentioning the first name of famous women scientists often help students break the stereotype that scientists are White men and that others are not welcome (e.g., Rosalind Franklin, Barbara McClintock, Martha Chase, Rachel Carson; see Chambers, 1983; Rosser, 1995).

In programs at this state of curricular development, students also learn that many scientists—ordinary as well as extraordinary—are products of developmental education programs. For example, Nobel laureate Norman Borlaug—the architect of the Green Revolution that vastly increased the world's food-supply – was a developmental education student in General College at the University of Minnesota.

Redefining and Restructuring Science to Include All Students

This is the ultimate goal of every science education program: to ensure that all students, regardless of their gender, ethnicity, or social status, have access to an attractive science curriculum. Achieving this goal involves reexamining the attitudes, contexts, conditions, and excuses that we accept as educational norms, and embracing the following (Rosser, 1995):

1. Good science teaching involves teaching science to all students. Teachers throughout the program employ teaching strategies that remove barriers to access, learning, and success (e.g., universal instructional design; see Silver, Bourke, & Strehorn, 1998; Waksler, 1996).

2. Good science teaching questions how knowledge and interrelationships are situated within discourses of knowledge and power, as well as how this affects students and teachers.

3. Good science teaching involves using multiple ways of knowing and doing science that reflect social, historical, and political concerns. Science is not isolated from other ways of knowing and doing.

4. Good science teaching must be political because of teachers' important roles and their desire to ensure social justice.

5. Good science teaching immerses all learners in the mediated construction of knowledge in meaningful, relevant, inclusive, and nurturing ways.

6. Effective science teachers teach "content" as well as the skills necessary for success in school and life.

Science for All

Increasing the access of developmental education students to science will increase the number of women, ethnic minorities, students with disabilities, and others in science-related professions; this, in turn, will help ensure that the professions continue to remain open to all students. This is especially important in light of the fact that 80 to 90% of workforce growth will be women and minorities, the groups not traditionally attracted in large numbers to the physical sciences and engineering. The status quo—that is, the continued exclusion and marginalization of developmental education students and others—will perpetuate the relative homogeneity of science. This, in turn, will perpetuate similar approaches to problem solving and interpretation of data, thereby restricting creativity and producing bias (Rosser, 1995).

A variety of educational programs and professional programs want "science for all Americans" (American Association for the Advancement of Science, 1989; National Research Council, 1996; National Science Foundation, 1996). "Science for all" requires access and equity for all. The transformation of science education to include developmental education students will be a big step toward accomplishing this goal.

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Appendices

UNIVERSITY OF MINNESOTA • General College
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PUBLICATION ANNOUNCEMENTS

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Proceedings of the Second Meeting on Future Directions in Developmental Education
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Call For Submissions - CRDEUL Monograph Series

Multiculturalism in Developmental Education

The fourth annually published independent monograph sponsored by The Center for Research on Developmental Education and Urban Literacy University of Minnesota u General College

We encourage and invite developmental educators across the country to contribute to the fourth independent monograph in a series sponsored by the Center for Research on Developmental Education and Urban Literacy (CRDEUL). The goal of these monographs is to build strong research and theoretical foundations in the field of developmental education from the perspectives of teachers, researchers, and support services specialists.

The fourth monograph will feature theory, research, and best practices related to the role of multiculturalism in developmental education. Institutions of higher education have historically disenfranchised women; people who are gay, lesbian, bisexual or transgender; people with disabilities; and individuals from diverse ethnic, cultural, and socio-economic backgrounds. Many instructors and researchers in developmental education agree that a fundamental goal of the field is to ensure the success of these students who have been traditionally underserved by the academy. Little consensus has been reached, however, on how to accomplish this goal. Dr. James Banks, former President of the American Educational Research Association (AERA) writes, "If multicultural education is to become better understood and implemented in ways more consistent with theory, its various dimensions must be more clearly described, conceptualized, and researched" (2001, Handbook of Research on Multicultural Education). The aim of this monograph, then, is to provide a forum for presenting theory and research on the complex facets of multiculturalism and their role in the field of developmental education.

Articles for this monograph might explore and expand the following questions:

- What is the definition of "multiculturalism" as it relates to developmental education theory, research, policy, and practice? Which theories might contribute to this definition?
- How does developmental education uniquely contribute to undoing institutional racism, sexism, classism, and other forms of discrimination in higher education?
- How do developmental educators conceptualize the process of knowledge construction? How do these theories translate into classroom practice? How can developmental educators ensure that all student voices are heard?
- What are some developmental education students' stories that might illustrate the importance of inclusion in higher education?
- What are some innovative examples of effectively addressing multiculturalism in developmental education, both at the classroom and programmatic levels?
- What student support services are vital to ensure the success of developmental education students, especially those traditionally underserved by the academy?

Submissions (see form on page 99) must be **postmarked by February 17, 2003**.

Manuscripts will be forwarded to the editorial board for peer review. Authors will then be notified regarding the status of their proposals and receive recommendations and feedback by April 28, 2003. Manuscript revisions will be due by June 16, 2003. The final publication goal for this monograph is fall 2003.

BEST COPY AVAILABLE

Refer to the guidelines for authors (on page 101) for further information related to manuscript submission. This information is also available online at **http://www.gen.umn.edu/research/crdeul/**

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Cover Sheet

Multiculturalism in Developmental Education

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We, the undersigned, agree to have this manuscript published in the CRDEUL monograph, Multiculturalism in Developmental Education. This manuscript does not duplicate previously published works or articles under consideration for publication elsewhere. We agree to abide by revision decisions made by the co-editors and editorial board. Signatures of all authors must appear below.

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Multiculturalism in Developmental Education

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